# ANNUAL REPORT

OF THE

# Medical Officer of Health

OF THE

# CITY OF HEREFORD

## 1905.

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BY

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HEREFORD:
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# HEREFORD

# URBAN SANITARY AUTHORITY.

## Sanitary Committee

FOR THE ENSUING YEAR, 1906:—

Councillor E. C. GURNEY, *Mayor.*

Alderman H. ROGERS, *Chairman.*

Alderman T. Turner.
Councillor E. F. Bulmer.
Councillor T. J. Cook.
Councillor W. C. Gethen.
Councillor J. O. Lane.
Councillor S. H. Prosser.

*Clerk to the Sanitary Committee* .. Joseph Carless.

*Medical Officer of Health* .. H. Cecil Moore, M.R.C.S., &c.

*Sanitary Inspector* .. .. .. S. Protheroe, Assoc. Royal Sanitary Institute.

*Medical Officer, Isolation Hospital* Ed. H. Collens, M.B., &c.

*Matron* .. .. .. .. .. .. Miss B. M. Stafford.

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# ANNUAL REPORT

OF THE

# Medical Officer of Health

TO THE

## TOWN COUNCIL, CITY OF HEREFORD,

*For the Year* 1905.

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MR. MAYOR AND GENTLEMEN,

I have the honour of presenting to you my ANNUAL REPORT for the year 1905, copies of which will be forwarded, in accordance with the Order, Art. 18, Sec. 14, of March 23rd, 1891, to the Local Government Board and to the Herefordshire County Council; also to the Secretary of State, as required by Section 132 of the Factory and Workshop Act, 1901.

The Report is made in accordance with the requirements of the Local Government Board. The Returns of Vital Statistics, drawn up on the Forms supplied by the Local Government Board, are appended at the end of the Report—in Tables I., II., III., IV., and V., concerning which a few explanatory remarks are now given.

### TABLE I.

In column 2 it will be observed that the population is estimated, not to the end of the year, but to the middle of the year; the increment of the twelve months is based upon the difference between the births and deaths in the two last quarters of 1904 and the two first quarters of 1905, with an allowance deducted for removals from the city by migrations. The difference without such deductions is 173.

The birth-rates and death-rates are calculated upon a population of 22,050 in the middle of 1905.

You will be gratified upon observing in column 13 the death-rate 14.05, estimated to the middle of 1905, the lowest ever recorded in your City. The 310 nett deaths belonging to your Urban District include the deaths of 4 citizens who died in the Lunatic Asylum, an institution outside your district, where 96 of your citizens were chargeable to your City on 31st December, 1905.

In the census of your population the nearly one hundred citizens in the Lunatic Asylum have not been included, whilst annually the deaths in the Asylum have always been included in the death-rate. Making a fair and just estimate by the inclusion of your citizens in the Asylum, the nett death-rate for the year 1905 is 13.9.

Further explanations will be found in the Notes under Table I.

## TABLE II.

This Table, bearing reference to each separate Ward of the City, commences with the decennial census of 1901. The increase of population in each separate Ward is estimated on the ratio of 173 to 150 as to the difference between the births and deaths in each Ward.

## TABLE III.

In this Table Notifications of Infectious Disease are classified not only as to localities, but also as to ages of patients, and removals to the Isolation Hospital. The Forms from which this Table is summarised indicate at once whether or not any disease is confined to any special locality.

## TABLE IV.

(*a*) In this Table all deaths of " Residents " occurring in public institutions, whether within or without the district, are included with other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-11, included among the deaths in their respective " Localities " according to the previous addresses of the deceased as given by the Registrars. Deaths of " Non-residents " occurring in public institutions in the district are in like manner excluded from columns 2-8 and 9-11 of this Table.

(*b*) The Notes on Table I. show the meaning of " Residents " and " Non-residents," and the " Public Institutions " are taken into account for the purposes of these Tables. The " Localities " are the same as those in Tables II. and III.

(*c*) All deaths occurring in public institutions situated within the district, whether of " Residents " or of " Non-residents," are, in addition to being dealt with as in Note (*a*), entered in the last column (16) of this Table. The total number in this column equal the figures for the year in column 9, Table I.

(*d*) The total deaths in the several " Localities " in columns 9-11 of this Table equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of this Table equal the gross total of columns 9-11, and the figures for the year in column 12 of Table I.

(*e*) For the mutual guidance of the Certifying Medical Practitioner the following instructions from the Local Government Board are given :—

Under the heading of "Diarrhœa" are to be included deaths certified as from diarrhœa alone or in combination with some other cause of ill-defined nature; and also deaths certified as from

Epidemic enteritis;
Zymotic enteritis;
Epidemic diarrhœa. Summer diarrhœa;
Dysentery and dysenteric diarrhœa;
Choleraic diarrhœa, cholera, cholera nostras
(in the absence of Asiatic cholera).

Under the heading of "Enteritis" are to be included those certified as from Gastro-enteritis, Muco-enteritis, and Gastric Catarrh, unless from information obtained by enquiry from the Certifying Practitioner or otherwise, the Medical Officer of Health should have reason for including such deaths, especially those of infants, under the special term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease should be included under the latter.

Under the headings of "Cancer" and "Puerperal Fever" should be included all registered deaths from causes comprised within these general terms.

## TABLE V.

This Table treating of Infant Mortality is a very valuable new introduction. Your Council cannot fail to be gratified that only 41 deaths occurred amongst 525 births registered, making the low Infant Mortality of 78 per 1,000; or, deducting the 8 deaths due to the non-preventable causes of Congenital defects and Premature Birth, there were 33 deaths amongst 517 births, *i.e.*, Infant Mortality 63 per 1,000 births.

## ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889, was adopted in January, 1890.

The Infectious Disease (Prevention) Act, 1890, was adopted in April, 1891.

The Public Health Acts (Amendment) Act, 1890; Parts II., III., and V., were adopted in April, 1891.

Chicken-pox was made notifiable indefinitely in Hereford on March 15th, 1902.

## PHYSICAL FEATURES OF THE CITY, AREA, POPULATION, &c.

It is unnecessary to repeat the Physical Features of the City, which were given with details in my Report for 1902.

In the same Report, page 6, the area of each separate civil Parish and Ward were given, forming in the aggregate 5,031 acres, or 7.86 square miles.

The circumferential boundary of the City is 17¼ miles, embracing about 50 miles of streets and roads repairable by the Corporation. One mile of the River Wye forms part of the boundary; 10½ miles lie on the North side of the river, and 5¾ on its South.

The population for each decade from 1801 to 1901 was given on page 6 of my Report for 1902.

The population of the last ten years is given in the excellent Form, Table I., first adopted by the Local Government Board in 1901 for the Annual Report for the year 1900.

The population, calculated upon the difference between the births and the deaths, and not making any allowance for removals from the City, is estimated at 22,175 on the 31st December, 1905.

Birth-rates, death-rates, etc., are calculated upon the estimate of a population of 22,050 at the middle of the year 1905.

## GENERAL STATISTICS.

### SUMMARY.

| | |
|---|---|
| Area of Municipal Borough .. .. .. .. .. .. | Acres 5,031 |
| Rateable value .. .. .. .. .. .. .. .. .. | £119,261 |
| Produce of penny rate .. .. .. .. .. .. .. | £496 18s. 5d. |
| Population at middle of 1905 .. .. .. .. .. .. | 22,050 |
| Population at Census of 1901 .. .. .. .. .. .. | 21,382 |
| Number of inhabited houses at Census of 1901 .. | 4,565 |
| Average number of persons to each house at Census of 1901 .. .. .. .. .. .. .. .. | 4.68 |
| Death-rate 1905, per 1,000 living .. .. .. .. .. | 14.05 |
| Ditto, including the citizens in the Lunatic Asylum | 13.9 |
| Average death-rate for previous ten years .. .. | 16.5 |
| Birth-rate 1905 .. .. .. .. .. .. .. .. .. | 23.8 |
| Average birth-rate for previous ten years .. .. | 25.0 |
| Infant death-rate (under 1 year old) per 1,000 births registered .. .. .. .. .. .. .. .. | 78 |
| Average Infant death-rate do. do. for previous 10 years .. .. .. .. .. .. .. .. .. | 130 |

## VITAL STATISTICS.

BIRTH-RATE.—525 births were registered in 1905, representing a birth-rate of 23.8. The average birth-rate of the last ten years is 25.0.

*Illegitimate.*—Of the above 525 births, after deducting 8 illegitimate children of Non-residents, we find amongst the 517 remaining as many as 29 (or 5.6 per cent.) were illegitimate; of these 4 died in infancy. In the aggregate there were 5 deaths in infancy amongst the illegitimates, the fifth being a child aged two months who was born at the latter end of the previous year 1904.

DEATH-RATE.—310 deaths of citizens were registered in 1905. These deaths include those of 4 citizens who died in the Lunatic Asylum, in the Hereford Rural District. The death-rate estimated to the middle of the year 1905 is 14. The death-rate to the end of the year is 13.9. This is the lowest death-rate recorded for the last thirty years since the passing of the Public Health Act in Hereford in the year 1875.

The death-rate recorded in the year 1876 was 28.8. The average death-rate of the previous ten years is 17.1.

Uncertified Deaths.—7, all infants; of whom one was an illegitimate, and one was of premature birth. The deaths are ascribed to convulsions.

Infant Mortality.—The deaths of 41 infants under one year were registered. The Infant Mortality per 1,000 births is 78. The average Infant Mortality of the last ten years is 130. 10 deaths were due to Bronchitis and Pneumonia, and 10 to Convulsions, 7 to Atrophy and Debility, 3 to Tubercular Disease. 7 were registered as Premature Births, and 1 as Congenital defects.

Not a single death amongst the Infants was due to Diarrhœa, or to any of the common infectious diseases. See Table V.

Zymotic Mortality.—From *Notifiable* Infectious Diseases 14 deaths were registered as follows:—Scarlet Fever, 1; Diphtheria and Membranous Croup 11, Puerperal Fever 1, and Erysipelas 1.

From *Non-notifiable* Infectious Diseases 2 deaths were registered:—1 due to Measles, and 1 to Whooping Cough.

Nine deaths were due to Influenza.

The Seven Chief Epidemic Diseases are:—(1) Small-pox; (2) Measles; (3) Scarlet Fever; (4) Diphtheria, including Membranous Croup; (5) Whooping Cough; (6) Fever (including Typhus, Enteric, and ill-defined Fevers; and (7) Diarrhœa.

Of the deaths from the above Seven Chief Epidemic Diseases, 1 was due to Whooping Cough; 11 to Diphtheria, including Membranous Croup; 1 to Scarlet Fever; 1 to Diarrhœa*; and 1 to Measles; making an aggregate of 15 deaths, or an average Zymotic death-rate of 0.68 per 1,000.

For the sake of comparison the following Table is given, in advance, by courtesy, from the Returns of the Registrar-General:—

## VITAL STATISTICS FOR 1905.

| | Annual Rates per 1000 living. | | | Infant Mortality Annual Death-rate of Infants under 1 year per 1000 Births |
|---|---|---|---|---|
| | Births | Deaths from all Causes | Death-rate seven chief Epidemic Diseases | |
| England and Wales .. | 27.2 | 15.2 | 1.52 | 128 |
| 76 Great Towns .. .. | 28.2 | 15.7 | 1.88 | 140 |
| 141 Smaller Towns .. | 26.9 | 14.4 | 1.50 | 132 |
| Rural England & Wales.. | 26.3 | 14.9 | 1.09 | 113 |
| **HEREFORD** .. .. | **23.8** | **14.0** | **0.68** | **78** |

*REMARKS.*

*It will be observed that whilst the birth-rate has sensibly diminished, the death-rate from each respective cause is more favourable than all Rural England and Wales.*

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* This, the only death registered as Diarrhœa, might perhaps reasonably have been classified as *Old Age*. The age was 85, and the registration was *Diarrhœa, syncope*.

INFLUENZA.—Of the 9 deaths attributed to Influenza, as many as 7 were over 65 years old.

PHTHISIS.—20 deaths, inclusive of one death aged 64 in the Lunatic Asylum; principally amongst the families of labourers and artizans, and the majority occurring during the inclement first and fourth quarters of the year. Of these 3 were of age between 60 and 70, and 1 was aged 75.

OTHER TUBERCULAR DISEASES.—13 deaths, of which 8 were children under 5 years of age.

CANCER AND MALIGNANT DISEASE.—21 deaths.

DISEASES OF THE RESPIRATORY ORGANS.—56 deaths. There was great mortality from Bronchitis and Pneumonia during the inclement first quarter of the year.

ALCOHOLISM AND CIRRHOSIS OF LIVER.—2 deaths, neither of which was attributed to Alcoholism.

HEART DISEASES.—40 deaths.

ACCIDENTS AND INQUEST CASES.—13 deaths; below the average.

ALL OTHER CAUSES.—109 deaths. The majority were registered "Senile Decay."

OLD AGE.—Of 95 who survived three score years and ten, 54 were of ages varying from 70 to 80, 32 of ages between 80 and 90, whilst 9 reached their 9th decade. The greatest age registered was 94. The mortality amongst the aged was most marked, as usual, in the first and fourth quarters of the year.

## DEATH-RATE PER 1,000 FROM THE PRINCIPAL DISEASES.

| | | |
|---|---|---|
| Small-pox | | 0.00 |
| Measles | | 0.04 |
| Scarlet Fever | | 0.04 |
| Whooping Cough | | 0.04 |
| Diphtheria and Membranous Croup | | 0.49 |
| Croup | | 0.00 |
| Fever | Typhus | 0.00 |
| | Enteric | 0.00 |
| | Other continued | 0.00 |
| Epidemic Influenza | | 0.40 |
| Diarrhœa | | 0.04 |
| Enteritis | | 0.04 |
| Puerperal Fever | | 0.04 |
| Erysipelas | | 0.04 |
| Other Septic Diseases | | 0.00 |
| Phthisis | | 0.90 |
| Other Tubercular Diseases | | 0.58 |
| Cancer, Malignant Disease | | 0.95 |
| Diseases of the Respiratory Organs | | 2.53 |
| Alcoholism | | 0.00 |
| Cirrhosis of Liver | | 0.09 |
| Premature Births | | 0.31 |
| Diseases and Accidents of Parturition | | 0.09 |
| Heart Diseases | | 1.81 |
| Accidents and Inquest Cases | | 0.58 |

## TABLE OF DEATHS.

From the principal forms of Disease during the last Ten Years.

| Name of Disease. | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Small-pox .. .. .. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Measles .. .. .. | 0 | 16 | 3 | 0 | 11 | 0 | 1 | 16 | 1 | 1 | 49 |
| Scarlet Fever .. .. | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 1 | 4 | 1 | 11 |
| Whooping Cough .. | 13 | 0 | 0 | 0 | 14 | 6 | 2 | 2 | 10 | 1 | 48 |
| Diphtheria and Membranous Croup | 11 | 6 | 3 | 1 | 1 | 2 | 2 | 2 | 7 | 11 | 46 |
| Typhoid Fever .. .. | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| Influenza .. .. .. | 0 | 5 | 5 | 9 | 12 | 6 | 6 | 5 | 4 | 9 | 61 |
| Diarrhœa .. .. .. | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 1 | 3 | 1 | 34 |
| Puerperal Fever .. | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 5 |
| Erysipelas .. .. .. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 1 | 6 |
| Phthisis .. .. .. | 28 | 34 | 30 | 24 | 25 | 28 | 22 | 21 | 29 | 20 | 261 |
| Other Tubercular Diseases .. .. .. | Returns not available for these 2 yrs. | | 11 | 14 | 14 | 15 | 6 | 18 | 12 | 13 | 103 in 8 yrs |
| Cancer .. .. .. | Returns not available for these 2 yrs. | | 16 | 25 | 22 | 22 | 26 | 25 | 13 | 21 | 170 in 8 yrs |
| Bronchitis, Pneumonia Pleurisy & Diseases of the Respiratory Organs .. .. .. | 48 | 54 | 38 | 43 | 63 | 49 | 58 | 39 | 63 | 56 | 511 |
| Heart Disease .. .. | 51 | 25 | 30 | 42 | 43 | 48 | 52 | 41 | 34 | 40 | 406 |
| Inquests and Injuries | 21 | 25 | 14 | 24 | 26 | 17 | 13 | 24 | 18 | 13 | 195 |

From the last column in the above Table the average annual mortality from each Disease is readily determined.

## INFECTIOUS DISEASES—(1) NON-NOTIFIABLE AND (2) NOTIFIABLE.

### 1.—Non-Notifiable Infectious Diseases.

Measles.—This complaint, which prevailed during the year 1903 and the early weeks of 1904, was not of any serious prevalence during 1905. Only 1 death was registered (an adult domestic servant) of Pneumonia after Measles.

Whooping Cough.—Only 1 death was registered, a child from Broncho Pneumonia following Whooping Cough.

### 2.—Notifiable Infectious Diseases.

The *Notifiable* Infectious Diseases in Hereford are :—Small-pox ; Cholera ; Diphtheria and Membranous Croup ; Erysipelas ; Scarlet Fever ; the Fevers known as Typhus, Typhoid or Enteric, Relapsing or Continued ; any of the forms of Fever connected with Childbirth, *whenever associated with Septic infection* (as Pyæmia, Septicæmia, Pelvic Peritonitis, Perimetritis, and Endometritis occurring in the Puerperium), and known under the general term of Puerperal Fever.

To the above add Chicken-pox, which has been made notifiable in Hereford indefinitely since 15th March, 1902, and Plague, which is notifiable throughout the Kingdom.

## INCIDENCE OF NOTIFIABLE INFECTIOUS DISEASES; AND DEATHS.

Table III., at the end of this Report, gives the number of cases notified during the year in each respective locality as regards Ward or Public Institution, and the removals to the Isolation Hospital.

Diphtheria.—52 cases notified. The 52 cases occurred in 35 houses. 9 cases were notified from 7 houses in the first quarter, 7 in 5 houses in the second, 2 from 2 houses in the third, and 34 from 21 houses (including one case from the Scarlet Fever Hospital) in the fourth quarter.

26 cases were notified from Ledbury Ward, 21 from Leominster Ward, and 4 from Monmouth Ward; the remaining case was notified from the General Hospital.

Membranous Croup.—3 cases notified from 3 houses, 1 in Ledbury Ward, and 2 in Leominster Ward.

Of the 9 deaths from Diphtheria 1 occurred in the General Hospital in February, 1 in his home in March. The remaining 7 deaths occurred in December; of these 5 occurred in their own homes, 1 in the General Hospital, and 1 in the Isolation Hospital.

Each of the 2 deaths from Membranous Croup occurred in their own homes in the month of April.

Erysipelas.—44 cases notified occurred in 42 houses, distributed as follows:—12 in Ledbury Ward, 20 in Leominster Ward, and 12 in Monmouth Ward. One death occurred in the Monmouth Ward in the month of March.

Scarlet Fever.—55 cases notified. The 55 cases occurred in 43 houses as follows:—18 cases from 10 houses (including 8 cases in the General Hospital, and a Nurse in the Isolation Hospital) in the first quarter of the year; 5 cases from 4 houses in the second quarter; 11 cases from 11 houses in the third quarter; and 21 cases from 18 houses in the fourth quarter of the year.

1 death occurred, a delicate boy aged 6, in the month of December.

Puerperal Fever.—3 cases notified, one from each Ward; 1 in the month of February, the two others in December. There was 1 death in December.

Chicken-pox.—88 cases notified from 60 houses; 8 from 8 houses in the first quarter; 21 from 17 houses in the second quarter; 18 from 11 houses in the third quarter; and 41 from 24 houses in the fourth quarter of the year.

## NON-NOTIFIABLE INFECTIOUS DISEASES.

Measles.—1 death of an adult from Pneumonia following Measles occurred in December.

Whooping Cough.—1 death of a child from Pneumonia following Whooping Cough occurred in December.

### REMARKS.

From the above it will be observed that the increase in both incidence and mortality in each respective disease occurred in the fourth quarter of the year. This was most marked in the latter part of December, following the remarkable dry autumn extending into the winter. Towards the latter end of December Diphtheria assumed a virulent form.

## COMPARABLE STATISTICS FOR 1905.

| | Birth Rate | Death Rate | Small-pox | Measles | Scarlet Fever | Diphtheria | Whooping Cough | Fever | Diarrhœa | Deaths under 1 year to 1000 Births |
|---|---|---|---|---|---|---|---|---|---|---|
| England and Wales | 27.2 | 15.2 | 0.00 | 0.32 | 0.11 | 0.16 | 0.25 | 0.09 | 0.59 | 128 |
| 76 Great Towns .. | 28.2 | 15.7 | 0.00 | 0.39 | 0.13 | 0.16 | 0.29 | 0.08 | 0.83 | 140 |
| 141 Smaller Towns.. | 26.9 | 14.4 | 0.00 | 0.31 | 0.11 | 0.15 | 0.23 | 0.13 | 0.57 | 132 |
| England and Wales Less the 217 Towns | 26.3 | 14.9 | 0.00 | 0.24 | 0.09 | 0.15 | 0.20 | 0.09 | 0.32 | 113 |
| HEREFORD .. .. | 23.8 | 14.0 | 0.00 | 0.04 | 0.04 | 0.49 | 0.04 | 0.00 | 0.04 | 78 |

## THE ISOLATION HOSPITAL FOR INFECTIOUS DISEASES.

*Total number of cases admitted into the City Infectious Diseases Hospital since its opening on 10th May, 1893.*

| Disease. | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Small-pox .. | 9 | .. | .. | 9 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 18 |
| Scarlet Fever .. | 15 | 38 | 70 | 17 | 39 | 16 | 33 | 24 | 32 | 27 | 12 | 45 | 35 | 403 |
| Diphtheria .. | .. | .. | .. | .. | 1 | 2 | .. | .. | 1 | .. | .. | .. | 10 | 14 |
| Typhoid Fever | 1 | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | .. | .. | .. | 3 |
| Measles .. .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| Total .. .. | 25 | 38 | 70 | 27 | 40 | 19 | 34 | 24 | 33 | 27 | 12 | 45 | 45 | 139 |

*Number of Cases admitted into the Isolation Hospital from the City, the General Hospital, the Workhouse, and the County* respectively.*

| YEAR | CITY |  |  |  | GENERAL HOSPITAL |  |  | WORKHOUSE |  | COUNTY* | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | Smallpox | Scarlet Fever | Diphtheria | Typhoid Fever | Scarlet Fever | Typhoid Fever | Measles | Small-pox | Scarlet Fever | Scarlet Fever |  |
| 1893 | 8 | 15 | .. | .. | .. | 1 | .. | 1 | .. | .. | 25 |
| 1894 | .. | 33 | .. | .. | 3 | .. | .. | .. | .. | 2 | 38 |
| 1895 | .. | 68 | .. | .. | 2 | .. | .. | .. | .. | .. | 70 |
| 1896 | 9 | 16 | .. | .. | 1 | .. | 1 | .. | .. | .. | 27 |
| 1897 | .. | 35 | 1 | .. | 4 | .. | .. | .. | .. | .. | 40 |
| 1898 | .. | 16 | 2 | 1 | .. | .. | .. | .. | .. | .. | 19 |
| 1899 | .. | 26 | .. | 1 | 6 | .. | .. | .. | .. | 1 | 34 |
| 1900 | .. | 24 | .. | .. | .. | .. | .. | .. | .. | .. | 24 |
| 1901 | .. | 32 | 1 | .. | .. | .. | .. | .. | .. | .. | 33 |
| 1902 | .. | 26 | .. | .. | 1 | .. | .. | .. | .. | .. | 27 |
| 1903 | .. | 11 | .. | .. | .. | .. | .. | .. | 1 | .. | 12 |
| 1904 | .. | 44 | .. | .. | 1 | .. | .. | .. | .. | .. | 45 |
| 1905 | .. | 26 | 10 | .. | 9 | .. | .. | .. | .. | .. | 45 |
| TOTAL | 17 | 372 | 14 | 2 | 27 | 1 | 1 | 1 | 1 | 3 | 139 |

* The City Isolation Hospital was built by the Corporation and provided for the use of the Citizens only. The Sanitary Committee resolved (May 8th, 1899), that in future no patient from the County should be admitted, and that the Hospital beds should be devoted exclusively to cases of residents in the City. The adjoining Rural Districts of Hereford and of Weobley have now an excellent Isolation Hospital.

## TOTAL DEATHS FROM ALL CAUSES IN THE HEREFORD CITY INFECTIOUS DISEASES HOSPITAL.

| YEAR. | CASES ADMITTED FROM THE CITY. |  | CASES ADMITTED FROM THE GENERAL HOSPITAL. | TOTAL. |
|---|---|---|---|---|
|  | Scarlet Fever. | Diphtheria. | Scarlet Fever. |  |
| 1893 | 1 | .. | .. | 1 |
| 1894 | .. | .. | .. | .. |
| 1895 | 1 | .. | .. | 1 |
| 1896 | .. | .. | .. | .. |
| 1897 | .. | 1 | 1 | 2 |
| 1898 | .. | .. | .. | .. |
| 1899 | 1 | .. | .. | 1 |
| 1900 | 1 | .. | .. | 1 |
| 1901 | .. | 1 | .. | 1 |
| 1902 | .. | .. | .. | .. |
| 1903 | 1 | .. | .. | 1 |
| 1904 | 4 | .. | .. | 4 |
| 1905 | .. | 1 | 1 | 2 |
| TOTAL | 9 | 3 | 2 | 14 |

# SCARLET FEVER STATISTICS, HEREFORD.

| Year. 1 | Estimated Population. 2 | Notifications. 3 | Under 5 Years of Age. 4 | Total Deaths. 5 | Treated in Isolation Hospital. 6 | Attack per 1,000 Population. 7 | Mortality per 1,000 Population. 8 | Percentage Removed to Hospital. 9 | Deaths in Hospital. 10 | Notes. 11 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1875 | 19,100 | .. | .. | 7 | .. | For this period Statistics not available. | .36 | | | |
| 1876 | 19,200 | .. | .. | 75 | .. | | 3.90 | | | |
| 1877 | 19,300 | .. | .. | 11 | .. | | .57 | | | |
| 1878 | 19,400 | .. | .. | 4 | .. | | .20 | | | |
| 1879 | 19,550 | .. | .. | 0 | .. | | .00 | | | |
| 1880 | 19,700 | .. | .. | 5 | .. | | .25 | | | |
| 1881 | 19,882 | .. | .. | 13 | .. | | .65 | | | |
| 1882 | Say 20,000 | .. | .. | 12 | .. | .. | .60 | | | |
| 1883 | | 62 | 20 | 9 | .. | 3.10 | .45 | | | |
| 1884 | | 21 | 11 | 1 | .. | 1.05 | .04 | .. | .. | At this period (1883 to 1889 inclusive) notifications were voluntary, consequently comparisons with other years are highly unsatisfactory or worthless. |
| 1885 | | 7 | 3 | 0 | .. | 0.35 | .00 | .. | .. | |
| 1886 | | 15 | 5 | 1 | .. | 0.75 | .04 | .. | .. | |
| 1887 | | 33 | 3 | 0 | .. | 1.65 | .00 | .. | .. | |
| 1888 | 20,100 | 9 | 4 | 0 | .. | 0.44 | .00 | .. | .. | |
| 1889 | 20,150 | 14 | 6 | 0 | .. | 0.69 | .00 | .. | .. | |
| 1890 | 20,200 | 32 | 9 | 0 | .. | 1.58 | .00 | .. | .. | |
| 1891 | 20,290 | 26 | 10 | 1 | .. | 1.28 | .04 | .. | .. | Compulsory Notification adopted, January 1890. |
| 1892 | 20,360 | 72 | 40 | 0 | .. | 3.53 | .00 | | | |
| 1893 | 20,440 | 165 | 94 | 16 | 15 | 8.07 | .78 | 9 | 1 | ISOLATION HOSPITAL OPENED MAY, 10, 1893. |
| 1894 | 20,580 | 146 | 81 | 3 | 38 | 7.09 | .14 | 26 | 0 | |
| 1895 | 20,720 | 155 | 54 | 3 | 70 | 7.48 | .14 | 45 | 1 | |
| 1896 | 20,860 | 70 | 20 | 0 | 17 | 3.35 | .00 | 24 | 0 | |
| 1897 | 21,000 | 65 | 25 | 3 | 39 | 3.09 | .14 | 60 | 1 | |
| 1898 | 21,140 | 31 | 8 | 0 | 16 | 1.46 | .00 | 51 | 0 | |
| 1899 | 21,250 | 39 | 13 | 1 | 33 | 1.83 | .04 | 85 | 1 | *a* |
| 1900 | 21,270 | 37 | 15 | 1 | 24 | 1.73 | .04 | 65 | 1 | *b* |
| 1901 | 21,400 | 51 | 15 | 0 | 32 | 2.38 | .00 | 63 | 0 | |
| 1902 | 21,550 | 36 | 8 | 0 | 27 | 1.67 | .00 | 75 | 0 | *c* |
| 1903 | 21,700 | 24 | 8 | 1 | 12 | 1.10 | .04 | 50 | 1 | *d* |
| 1904 | 21,900 | 65 | 8 | 4 | 45 | 2.96 | .18 | 69 | 4 | *e* |
| 1905 | 22,050 | 55 | 6 | 2 | 35 | 2.49 | .09 | 64 | 1 | *f* |

*a* This patient was, after professional consultation, very carefully removed to the Isolation Hospital. She was in an almost hopeless condition ,and death appeared imminent under her very unsuitable home surroundings.

*b* A delicate child with an unfavourable medical history.

*c* The Isolation Hospital was closed to the public by order of the Sanitary Committee on February 24th, 1902, pending the erection of a Temporary Isolation Hospital for Small-pox cases. The Hospital was re-opened on 21st April. During that period 8 patients suffering from Scarlet Fever were treated in their own homes.

*d* A child exceedingly ill upon removal to the Hospital.

*e* Of these 4 cases, 2 were of a malignant character, and considered almost hopeless before removal to Hospital: the third lapsed into a diphtheritic type; the fourth was complicated with Bronchitis.

*f* This was not a citizen. He was a boy from the Rural Districts admitted into the General Hospital, and removed thence into the Isolation Hospital.

## RETURN CASES.

The subject of "Return Cases" of Scarlet Fever has been treated in detail in my previous Annual Reports, especially on pages 15 and 16 of the Report for 1903, and page 15 of the Report for 1904.

During the last two years we have not had to record a single Return Case.

## OUTBREAK OF DIPHTHERIA.

In the autumn of 1905 a few sporadic cases of Diphtheria occurred in three or four rural parishes in the neighbourhood of Hereford. On November 14th an infant aged two was notified from a sanitary locality in our City in an open airy street with semi-detached houses in blocks with gardens. By the end of November, 5 other cases were notified, including 2 from the General Hospital, frequented by visitors from the rural districts. These 6 cases were directly, or more or less indirectly through their brothers and sisters, connected with 5 separate Day Schools and 4 separate Sunday Schools in two separate Wards of the City. Two of the six were under school age, being infants of 1 and 2 years respectively.

Up to the end of November there was no reasonable cause to associate the origin of the Diphtheria with any special School.

Before the Schools broke up for the Christmas holidays 9 fresh houses had become infected in December, in which the resident children were connected with 2 additional Day Schools and 2 additional Sunday Schools. Of 14 cases notified in December, before the breaking up of the Schools, 4 were adults beyond school age and 2 were infants of one and two years respectively.

Of the aggregate 20 cases notified before the breaking up of the schools on 22nd December, deducting the infants and adults, (a total of eight) the remaining 12 were associated with 7 Day Schools and 6 Sunday Schools. This promiscuous connection with several Schools observed from the very commencement of the outbreak became more marked as time progressed. The association with 13 Schools where children were congregated in the three separate Wards of the City indicated that the Diphtheria was not limited to any special school. As for the origin of this outbreak it will never be satisfactorily determined*.

In the middle of December Diphtheria suddenly assumed a virulent and fatal type in two houses connected with 3 Schools, and in the third week in 3 houses connected with 4 Schools. On inspection of the scholars I selected a few suspicious cases, excluded them from school for treatment at home; whilst I at the same time was able to distribute a few tickets for treatment at the General Hospital of children evidently delicate, but not suffering from any infectious complaint. Owing to the preponderance of connection of the notified cases with St. Peter's Infant School, it was closed immediately before the appointed day of breaking up for the holidays.

During the two weeks' holidays an aggregate of 22 cases was notified. Deducting four adults not associated with schools, the remaining 18 cases were directly or indirectly connected with 12 schools (8 Day Schools and 4 Sunday Schools); the patients affected extended over a vast area of the City, but hitherto not a single case from south of the river Wye.

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* Some may believe that the invasion was due partly to the long continued comparative immunity from the virulent type since the years 1894, 1895, 1896, in which consecutive years we had 15, 11, and 11 deaths respectively. We must go back a further ten years to the prevalence of its synonym, Membranous Croup in 1884-1885, and further still to the disastrous year 1876, when most probably many cases of unrecognised Diphtheria were mixed with the 75 deaths in that year from Scarlet Fever.

During the closure of the Schools for the holidays, I felt comparatively powerless, in the knowledge that numerous unrecognisable cases must be scattered over the City, only to be discovered by a house-to-house inspection, which was impracticable, and in comparison with which a decennial census was child's play, as every inspector must necessarily be an expert.

In the Christmas week the Sanitary Committee wisely opened the hitherto unused Small-pox Hospital to meet the emergency of the invasion. From one house as many as five children, from another house in which a fatal case had occurred three young persons were admitted, and by 31st December 10 patients had been admitted from 4 houses. Moreover, a patient in the Scarlet Fever Hospital had contracted Diphtheria.

An inspection of St. Peter's Infants' School revealed a broken rain-water pipe connected with a drain, untrapped, upon adjoining property, a few feet distant from two windows and a door of the School.

Much as the micro-organism of Diphtheria has been searched for unsuccessfully in sewage or sewer air, I am not aware that it has ever yet been found. The theory that defective drainage, exposure to sewer air, and insanitary surroundings are the "principal causes" of Diphtheria belongs to the past century. Nevertheless, insanitary conditions must always be searched for and remedied, for at least they are contributory causes by lowering the general health and thereby rendering any individual more susceptible to any infecting agent, making the mucous membrane of the mouth or nose unhealthy, thus affording a favourable field for the growth of any germ (bacillus) that may be implanted therein.

The sanitary defects of the school and its surroundings were remedied, and an immediate and thorough disinfection of the entire interior was made, including cupboards, furniture, wall hangings, &c., by a strong solution of Cyllin. Efficient ventilation was introduced upon a wall previously hidden by a children's gallery, which was wholly removed off the premises.

Diphtheria occurs in dwellings unscrupulously free from any sanitary defect, and is common in country districts. One of my sisters in an isolated rural residence lost three of her children in about one week. It has long been a matter of observation that it apparently selects, as if by preference, houses on freshly turned-up ground, newly-built on strictly up-to-date sanitary principles.

Diphtheria is distributed not only by personal contact with "sufferers" from the complaint in some outward visible symptom, but also with "non-sufferers," or unconscious "carriers" in their mouth, throat, nose, ear, and elsewhere of the specific pathogenic micro-organism. These "carriers" or "ambulatory cases" often are free from any recognised inconvenience to their personal comfort, or even any symptom recognisable by the unaided eye of the medical practitioner. Any one of us may have been unconsciously "carrying" for a protracted period* one or more of the virulent or non-virulent forms of the Diphtheria germ (bacillus), feeling at the same time not sufficiently inconvenienced as to cause any interference with our daily business and duties in life; perhaps occasionally suffering from rhinitis, "a stuffy cold in the nose," an occasional sore throat with nothing visible upon inspection beyond a superficial redness of the tonsils. Due to the natural power of resistance of the individual, to Diphtheria antitoxin in his own system, to the phagocytes, natural harmless cells which under the conditions of good food, exercise, temperance, moderation in all its phases, retain their power of destroying, or preventing the growth of, the harmful cells, he remains immune to the toxic germ, but may transmit it to others susceptible to its influence. From any mild unrecognisable case, from any unconscious "carrier," Diphtheria may be distributed broadcast in the simple acts of breathing, speaking, coughing, sneezing, &c.† Even medical practitioners are liable to become unmindful of the dangers to which they are exposed in attending Diphtheria patients. Three of my friends have lost one of their eyes owing to the sudden coughing of the patient whilst under examination. In home treatment the attendants and residents must be cautioned against this danger.

In the present days of bacteriological examinations an enormous percentage of "carriers" of one or more of the numerous modified forms of Diphtheria germ is notified, who in earlier years were not recognisable and so escaped notification. There is thus a danger in creating a panic amongst the public who are not informed upon this point, and who form their judgment by the numbers of cases notified.

Diphtheria is capable of assuming every grade from the mildest unrecognised and unrecognisable (except by the expert bacteriologist) type to the most virulent. It is to the mild unrecognised "ambulatory cases" that the spread of the disease is chiefly responsible. Considering the large number of these cases that we find existing, it is marvellous that we are ever free from Diphtheria in its more virulent form. Fortunately some of the modified attenuated forms are, with few exceptions, harmless.

Of one variety called "Hofmann," which is considered identical with the "Pseudo-diphtheria" bacillus of earlier observers. Dr. Cobbett, writing in "The Journal of Hygiene," vol. i., 1901, p. 258, of the outbreak of Diphtheria in Cambridge, 1900-1901, remarks that his observations "gave no reason for thinking that the Pseudo-diphtheria bacillus is other than perfectly innocuous to man," . . . . and that "the relationship between the Pseudo-diphtheria and the Diphtheria bacillus remains undecided." Graham-Smith, writing on the outbreak in Colchester in 1901 in "The Journal of Hygiene," vol. 2, 1902, page 170, holds similar opinions. So also Thomas and others.

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* The longest period I can recall to mind is sixteen months. See "British Medical Journal," Feb. 28th, 1903, page 485; see also September 16th, 1905, page 650, quoted by Dr. P. Watson Williams, Physician to Clifton College, Bristol.

† On this subject the investigations of Dr. Mervyn Gordon for the Local Government Board in 1901 may be referred to. In an experiment by sneezing twelve times, giving a few short coughs, and speaking a few words, Bacillus prodigiosus was expelled from the mouth of the performer to the distance of 40 feet in front of him (Koeniger).

On the contrary, I have very strong reasons for conviction that we must, especially during the prevalence of Diphtheria in a virulent and fatal form, such as we experienced during the latter part of December, look upon the presence of the "Hofmann" or "Pseudo-diphtheria" bacillus with suspicion and caution, and capable of becoming virulent under altered more favourable conditions, or if transplanted to another person*. Whilst admitting that the Hofmann bacillus has never yet in the laboratory been satisfactorily proved capable of being converted into Diphtheria bacillus, nor *vice-versa*, yet that seems to me not sufficiently convincing proof that such changes cannot occur under highly different conditions of climate and soil fertilised and matured by the secretions of nose, mouth, throat, ear, &c., in the laboratory of the human system, conditions inimitable and unattainable in the laboratory of the human bacteriologist.

The interchangeable stages in the history of a case of Diphtheria varying from Klebs Loeffler, the virulent type, to Hofmann, and back again after an interval to Klebs Loeffler, as also the isolation of each form from the same throat, indicate an affinity the nearness of which is as yet undetermined, unless Hofmann be really nothing more than a normal inhabitant of of the mouth, and especially of the mouths of children. Its prevalence, 44 per cent., in the throats of healthy children in a seaside school where Diphtheria was unknown, has been known to us ever since the earliest investigations of Klebs, of Loeffler, of Roux, Yersin, more than twenty years ago. Graham-Smith found it in 64.5 per cent. of children attending the poorer class schools, in 31.5 per cent. attending better class schools, and in 19 per cent. of the throats of the well-to-do classes. In Bristol, during the outbreak of 1901, it was found in 75 per cent. of "contacts." (*Public Health*, December, 1901, p. 181, Dr. John C. Heaven).

Cases are on record of cultures fatal to animals where nothing but Hofmann bacillus was to be found; of its pathogenic effects not being neutralised by Diphtheria antitoxin; and records, amounting to between twenty and thirty, by many Medical

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* Consequently I call upon each Medical Practitioner to notify to me *during an epidemic* each case of Hofmann bacillus carrier, with the view of my excluding resident contacts from the Public Elementary Schools, and insisting upon their treatment in their own homes with a Diphtheria germ-killing spray.

Officers of Health, *e.g.*, Drs. S. Davies, J. C. Heaven, of Bristol[*]; J. Priestley, R. S. Davies, and R. K. Brown,[†] demonstrate that "it is neither justifiable nor safe to dogmatically assert that under no conditions can Pseudo-diphtheria bacilli be harmful, or that they may in all instances be safely disregarded."[‡]

Finally, that Hofmann bacillus is not always harmless. See "Public Health," December, 1901, p. 181, *et. seq.* (John C. Heaven), and "Lancet," August 1st, 1903, page 333. On "Suspicious" cases or carriers of Hofmann bacillus, see "Public Health'.' June, 1903, page 529.

On December 31st our position since the outbreak on Nov. 14th was as follows:—

32 cases had been notified from 18 houses. Deducting 12 infants and adults and the case in the Scarlet Fever Hospital, the remaining 19 cases were more or less associated with 13 schools, made up of 7 Day Schools and 6 Sunday Schools. Each of the 32 cases was notified owing to the manifestation of clinical symptoms. Up to this date the system of confirmation by bacteriological examination had not been generally adopted by our medical practitioners.

The distribution of the cases was as below:—

18 cases in 14 houses in their own homes.
3 cases in the General Hospital.
1 case in the Scarlet Fever Hospital.
10 cases from 4 houses in the Isolation Hospital.
—
32

As to Deaths. 7 deaths (a very high average)[§] had occurred connected with 5 houses. Amongst these seven fatal cases, two victims were cousins, although not living in the same house: as many as 3 members of one family were residents in the same house; of these latter the first death, a boy aged 6, occurred in his own home; the second, a girl aged 4, after an interval of eight days, following the operation of tracheotomy, in the General Hospital; the third, a youth beyond school age, after a further interval of five days, in the Isolation Hospital.

To attack Diphtheria with reasonable hope of success there must be available[||]:—

(1) Notification; (2) Proper Hospital accommodation; (3) Efficient means of disinfection; (4) the aid of Bacteriological examination; (5) Competent inspection of contacts (in the widest sense of the word); (6) The use of Antitoxin curatively and preventively.

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[*] "Public Health," June, 1903, vol. xv., page 516. Journal of State Medicine," October, 1903.

[†] Public Health," 1903, vol. xv., page 567.

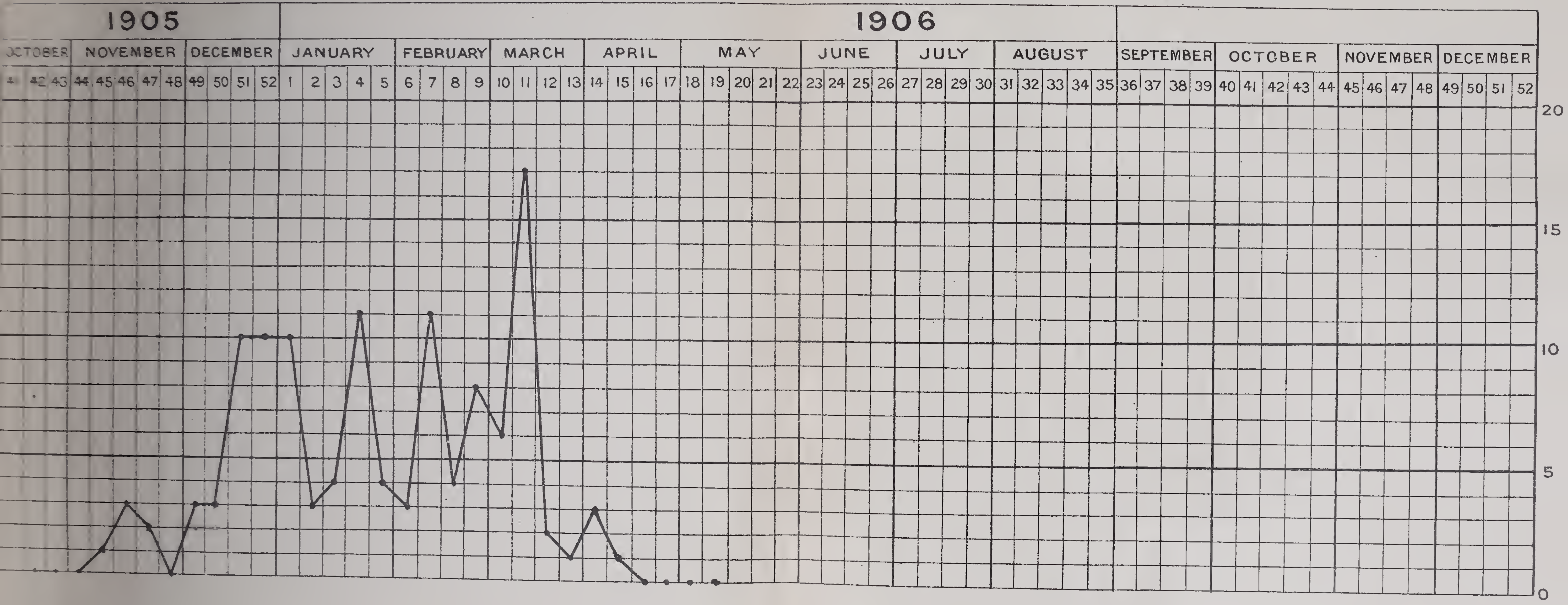
[‡] "British Medical Journal," November 26th, 1904, page 1492.

[§] In the years 1894, 1895, 1896, we had in Hereford 15, 11, and 11 deaths respectively. In the present year, 1905, we have had 11 deaths.

[||] "Public Health," December, 1901, p. 182. Dr. J. C. Heaven.

# CITY OF HEREFORD.

## CASES OF DIPHTHERIA WEEK BY WEEK, COMMENCING 14TH NOVEMBER, 1905.



Of the above six requirements the three first have been at our service. For the fourth, bacteriological examination, the engagement of an expert of many years experience, Professor Stanley Kent, University College, Bristol, dates from June 20th, 1904. Swabs for taking rubbings of the exudate, and antitoxin for treatment of those unable to pay, are supplied free, at the expense of the Sanitary Committee, to any medical practitioner on application at the Health Office, Town Hall. The bacteriological examination is also paid for by the Sanitary Committee, at least for patients unable to pay. See my Health Report, 1904, pages 16-17.

With reference to the requirement (No. 5). The competent inspection, observation, and treatment of " contacts " (in the widest sense of the word) is as important as any for preventing the spread of Diphtheria. It embraces their exclusion from schools and treatment in their own homes.

In some towns a special Isolation Home for " suspicious " cases has been opened. At the same time an apartment has been opened for treatment of " contacts " as out-patients. It would be unwarrantable to make use of the Public Hospitals or Dispensaries. Considering that there may be sometimes ten residents in a single house, the number of " contacts " in any invasion soon amounts to several hundreds. The above methods are good so far as they go, but should be supplemented by treatment in their own homes. The " contacts " will play truant and shirk daily attendance as out-patients. The most effectual way is to follow them up by treatment in their own homes, which I trust will be found practicable in a small place like Hereford.

My own personal experience of treatment of " suspicious " cases, and of " contacts " with true Diphtheria amongst scholars, as well as of a few cases of Klebs-Loeffler, the virulent type, has been markedly successful.* Each medical practitioner should adopt the same system in private practice.

During the last three months I have visited one or more of our Public Elementary Schools almost daily, and, not having sufficient confidence in the establishment of an Out-patient apartment for " suspicious " cases and " contacts," I have personally visited and treated them in their own homes by spraying " Medical Cyllin " (diluted 1 in 4 of water), and the administration of Cyllin lozenges†.

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* The many classes of the 14 or more Departments of our Public Elementary Schools number nearly 4,000 scholars, or one-fifth of the population.

† On March 12th of the current year (1906) the Sanitary Committee appointed the Medical Officer of the Isolation Hospital to take " swabs " of all contacts with any case notified within the City; and on March 22nd Mrs. Protheroe was appointed to continue daily spraying of the contacts so long as was required.

Diphtheria immediately subsided. At the present date (April 30th) of adding this foot note, the invader has apparently been expelled. The last home-treated case of " true " Diphtheria, confirmed by bacteriological examination, dates from 27th March; there is only one house where pseudo-Diphtheria is being treated by spraying.

Objects of Bacteriological Examination.—The object is to demonstrate the presence or absence of the Klebs-Loeffler bacillus, the cause of the disease indicated by the expression "true Diphtheria" or "marked Diphtheria." In none of the kinds of Diphtheria is the property of infectivity so marked, nor the fatality so high.

Many sore throats in which membrane is formed are due to mixed infections, that is, to the presence of more than one kind of microbe; though, as a rule, some one of these is found in greater abundance than the others.

Caution.—Failure to find the Klebs-Loeffler bacillus does not necessarily imply its absence. In cases where no bacilli are found it is a valid argument that by some error of inoculation or of observation, they may have been overlooked; attention is therefore called to this point in every negative certificate, and the case, if clinically suspicious, must be treated with the usual care in all infectious diseases.

Recommendation.—Send rubbings or "swabs" a second or even a third time for examination.

See "Report of Medical Officers of Health," Public Health Offices, Bristol, July, 1895.

Diphtheria bacilli seldom disappear in so short a time as 14 days. Three, or at the very least two, consecutive cultures should have been returned "negative" before the cessation of isolation is allowed and final disinfection carried out.

Nasal Discharges.—Special attention is directed to any reddening or glazy appearance of the mucous membrane of the nostrils, to any discharge of irritating fluid of various grades of consistence, to crustiness or scabbiness at the lower part of the nasal fossæ, or puckering, excoriation, or bleeding. So long ago as 1896 Dr. J. C. Heaven, of Bristol, read a paper before the Incorporated Society of Medical Officers of Health, to which reference is made under the heading, "The Prevention of Disease," in "Public Health," December, 1901, p. 174, as follows:—"I wish to emphasize the fact that cases undoubtedly occur which are really diphtheritic and capable of spreading Diphtheria, but in which there is no membrane apparent, and *no symptoms whatever* save some slight discharge."

On pages 175, 176, 177 of the same paper he records numerous instances showing the frequency of *nasal Diphtheria without obvious symptoms*.

## PROCEDURE RESPECTING SCHOOLS.

Scholars should be carefully kept under daily observation in the schools. All teachers and assistants must be instructed what to look out for, urged to send home the least suspicious case, with injunctions to the parent or guardian to call in a doctor; the name and address of the scholar should be sent to the Sanitary

Authority. The Medical Officer of the Education Department and his Assistants must make frequent visits to the separate classes in the schools. Under these conditions it is rarely obligatory to close the schools. In fact it is only necessary in cases where some special school, or class in a school, is seriously implicated. Reference to the procedure in various towns corroborates the above practice.

On page 4 of " Report on Diphtheria," 1903-4, by Dr. D. S. Davies, in a district of Bristol called " Fishponds," we read :— " School closure is non-essential to success, and indeed seems to be uniformly followed, in the absence of disturbing factors, by considerable increase in cases in the affected district."

One of the most recent publications on the method of coping with Diphtheria in schools is to be found on pages 24 to 30 of the Report of the Education Committee of the London County Council for the year ended March 31st, 1905, submitting the report of Dr. James Kerr, Medical Officer (Education). On page 25 we read : " The necessity for school closure for Diphtheria has become very rare in London. It would only be resorted to now as a confession of failure, either for want of time or want of staff," &c.

During the holidays children in their own homes cease to be under observation, and by mingling promiscuously in streets, courts, alleys, and even in forbidden infected houses as visitors, alike contract Diphtheria and disseminate it without its being discovered until prominent symptoms become apparent. In the regularity of school life their hours are more fully occupied in healthy work, and healthy play in their open school-grounds, and in going to and from school. The daily observation of the scholar in his class and playground, with inspection by the Medical Education Officer where there is an epidemic, seems to me the most reasonable procedure. Any child exhibiting any sign of ill-health, discharge from ears or nostrils, sore throat, enlarged glands, undue pallor, listlessness, &c., is examined and treated as may be required ; and in the case of even " suspicious " Diphtheria is excluded from school, together with all brothers, sisters, and fellow resident " contacts," until considered free to return to school.

But such action will be useless unless provision is made for the treatment of those excluded from school and of the numerous " contacts." Of necessity every child carrying " Klebs-Loeffler " or " marked Diphtheria " should be removed to the Isolation Hospital."

## SCHOOL CLOSURE IN GENERAL.

The examination of suspects in school, when an outbreak of Diphtheria occurs, in preference to the closure of the school has been treated above, but not so fully as I would like. Further treatment of the subject would consist in my bringing forward an array of supporters in favour of keeping the scholars under observation in school, and otherwise acting as has been explained.

For other infectious diseases no hard and fast regulations can be followed generally. Each must be considered separately, and action taken after reasonable reflection. A knowledge of the previous life-history of every scholar, as adopted in some few schools, would afford us most valuable assistance.

For the infection of Measles we are guided by our knowledge of the different character of this disease. Owing to its early infectivity before the appearance of the rash, the balance of evidence is in favour of infant schools being closed upon the earliest opportunity. This system has its disadvantages by involving closure possibly upon false alarms; again, the more successful it is the oftener it has to be repeated, thus materially interfering with educational progress. To close the schools late is quite futile, as all the susceptible infants will have contracted the complaint.

The subject is frequently discussed in our Public Health Congresses. At the present time a highly interesting experiment, commenced in 1902,, is being conducted by the London County Council to extend over a period of five years. One half of an area suppresses every appearance of Measles by rigorous closure of the school, whilst the other half simply excludes the individual attacked. In the above-referred to Report by Dr. James Kerr of the Education Committee the subject is treated on pages 30 and 31, with an Appendix by Dr. Thomas occupying pages 46 to 60. The experiment has to run over a further period of two years hence.

One thing certain is that closure of schools can never take the place of good hygienic school conditions, and of teachers specially trained in school hygiene. The lighter, the more efficiently ventilated, and the less crowded a school, the less is the spread of any infectious complaint.

I have Dr. Kerr's Report before me. It is reviewed in the "British Medical Journal," January 27th, 1906, pp. 216 to 220, and again referred to in the issue for February 3rd, page 297. The general conclusions at the end of Dr. Thomas's Report are, however, deserving of being kept on record for our future guidance.

## GENERAL CONCLUSIONS.

Dr. Thomas states that the general conclusions which the inquiry seems as a whole up to the present to justify are :

1. Measles at present in London only spreads in classes under 5 years of age, except in certain better-class districts. Seventy-five per cent. of children above 5 in infants' departments are protected.

2. Measles tends to spread whenever a class accumulates unprotected members to the extent of between 30 per cent. and 40 per cent., and when spread has begun it continues until the proportion is reduced to between 15 per cent. to 20 per cent. unprotected.

3. If the children under 5 were excluded from school, closure for Measles would not be necessary for some time in London, except in one or two special districts; if, however, this were successful in postponing attacks, the question would again become acute in a few years.

4. To deal efficiently with Measles accurate knowledge is required; the Measles history should be elicited for each child on admission to the school. This should be done universally; if notification to school authority was made compulsory on every parent whose children attended school, our hands would be greatly strengthened. Unless the amount of susceptible material is fairly accurately known for each school, we shall only be working in the dark, as heretofore, and nothing of any value can be expected to accrue from our methods.

5. To effect any useful purpose, school closure must take place before the "first crop" falls. The old practice of waiting until the attendance fell to a certain limit was useless in arresting the spread of Measles, and did absolutely no good.

6. The means of arresting spread of Measles other than school closure are of enormous importance. To name two—sanitary buildings and training of teachers; these two factors probably have the greatest effect of all in determining the extent of spread of an outbreak.

7. Deaths often occur from ignorance on the part of parents. Circulars should be sent out wherever Measles has appeared in a class—that is, on the incidence of the first case—begging mothers to notice colds, and upon the slightest suspicion of such symptoms to keep the child at home for a day or two. In this way Measles would probably be checked to a far greater extent than has been effected by any other means. Instances have come to our notice where heartbroken mothers have stated that, had they known, they would have treated colds seriously of which they took no note, and thereby their children's lives would have been saved. I suggest that circulars be thus used during next year in Woolwich.

8. Measles *never* spreads in the boys' and girls' departments. There is no need to exclude children from infected homes who attend the upper departments. As a result of our inquiries, this has actually been carried out at Brighton, with satisfactory results.

9. There is too great a tendency to look at things from an "attendance" standpoint; this is one of the greatest evils with which we have to contend. The withdrawal by the Board of Education of Article 101* was the greatest piece of official folly ever perpetrated. If a whole department is closed the average attendance is not affected; but if on the score of health a single class is closed by order of Sanitary Authority, or by the Council's Medical Officer, it is supposed that the attendances are missed, and the effect upon the average attendance and consequent grant is enormous. We thus have great difficulty in carrying out our

measures, as much opposition is often encountered to the necessary closure of a single class, while the unnecessary closure of a whole department is gladly borne or even welcomed.

10. This is an economic question which is not one of health at all; and when attendance has fallen to a certain percentage at which the loss of grant is so severely affected, the department should be automatically closed independently of the question of health. This percentage ought to be worked out.

## DISINFECTION.

For details upon this subject and for numerous valuable references to authorities see my Health Reports for 1903, pages 19 and 20, and 1904, page 17. To these must be added "Experiments on the Disinfection of Tubercular Sputum," by Dr. E. Klein, "Public Health," October, 1904, and on the same subject a paper by Dr. W. C. Lodwidge, read before the Metropolitan Counties' Branch Brit. Med. Assoc., December 7th, 1904; "Lancet," Feb. 11th, 1905, p. 377; "Revue Internationale de la Tuberculose," March 1905; "Lancet," April 15th, 1905; "The Medical Press," June 21st, 1905; "Lancet," June 24th, 1905; "Journal of Tropical Medicine," July 1st, 1905; "Education," July 14th, 1905, giving extract from Report No. 82 of the Sanitary Committee City of London; "The Medical Press and Circular," July 26th, 1905; "Problems in Practical Disinfection," by C. G. Moor, F.I.C., "Public Health," 1905; "The Midwife and Disinfection," by Dr. D. Somerville, "Public Health," Nov., 1905, and various other reports from foreign countries.

For the Table of Carbolic Acid Co-efficients, showing the bactericidal action of Cyllin in various infectious diseases, see "The Practitioner," vol. lxix., p. 520.

In the selection of Disinfectants for general use, all Municipal Authorities who have paid attention to the subject up to date, since the reports of various experts on the standardization of Disinfectants have been issued, base the price upon the germicidal equivalent of the preparation in comparison with Carbolic Acid as the standard, and not on the volume thereof.

From the Table above referred to in "The Practitioner," the Carbolic Acid Co-efficient of Cyllin for effecting the sterilization of the bacillus of Diphtheria is 20, as determined by the investigators Prof. Wm. Smith and Dr. David Somerville.

For spraying throats and noses of sufferers from Diphtheria, I have obtained very promising results by using 1 teaspoonful of Cyllin diluted with 4 teaspoonfuls of water. By using a portable metal sprayer, I find that the volume of spray expelled in one downward action of my instrument is equivalent to about 3 drops of this solution. As evidence of the non-poisonous character, at least to my own system, of this disinfectant diluted as above, I may state that I have frequently on the same day sprayed my own throat from six to ten times, with no more inconvenience than a temporary unpleasant taste.

To children I give Cyllin lozenges.*

Before leaving the subject of Disinfectants, I must refer to some literature upon a possibly no less powerful germicide Izal, but as the discussion is still pending, with instalments given month by month at the commencement of the year 1906, its relative value is still *sub judice*. See "Journal of the Royal Sanitary Institute," 1904, vol. xxv., p. 385, "Practical Disinfection in Rooms and Workshops occupied by sufferers from Consumption," a paper by Drs. H. Kenwood and F. J. Allan at the Congress at Glasgow, 1904; "Some observations upon the Practical Standardization of Disinfectants," by Drs. H. Kenwood and R. T. Hewlett, in the first 16 pages of "The Journal of the Royal Sanitary Institute, 1906*.

## INFANT MORTALITY—LADY HEALTH VISITORS.

We have cause for congratulation on our low Infant Mortality, namely, 78 per 1,000 births registered during the same period, for the year 1905. If we deduct 13 non-preventable causes, such as congenital defects, premature birth, &c., where the infants survived only a few hours, we should have the low Infantile Mortality of 63 per 1,000 births registered. In Hereford we rarely record deaths from Infantile Diarrhœa. The only death in 1905 due to diarrhœa was that of an old man aged 85.

The public is now generally familiar with the favourable results of the experiments of the Mayor of Huddersfield by the circulation of a few short rules on Infant Feeding, and the promise of £1 to every mother upon her infant surviving its first year.

We desire a civic interest actuating beyond this ingenious insurance limited only to twelve months, and would prefer its extension to at least five years of age. A large proportion of infant mortality is due to absence of cleanliness, to ignorance, improper feeding, and negligence in the care of infants during and especially subsequent to, the ailments of whooping cough, measles, &c. Amongst remedial measures, as has been found in Birmingham and elsewhere, most valuable results will be assured by Lady Health Visitors distributing leaflets to mothers and householders, and personally imparting instructions on cleanliness and health.

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* Each lozenge contains one-tenth of a minim (or drop) of Cyllin. A child aged 5 may have five lozenges a day; to younger children I give 5 half-lozenges daily.

* Further correspondence upon this subject is continued in the March and April numbers of "Public Health," 1906, as to the *co-efficients of Cyllin and Izal when treating of their germicidal powers upon the bacillus of typhoid fever.*

Our expenses during the year 1906, owing to the outbreak of Diphtheria, will be too large for me to expect from our Sanitary Committee the additional help of a salaried Lady Health Visitor. Whilst I maintain my previously expressed opinion of reward, a few years hence, from the inclusion of the principles of Hygiene by our teachers in the Public Elementary Schools, I would welcome the experiment, in which I will venture to hope for a little financial aid from philanthropists, of the more or less voluntary services of Lady Health Visitors, say one lady in each Ward, possessing the advantages of previous experience and training in sanitary matters, to work on the principles of the Ladies' Public Health Society in unison with the Manchester and Salford Sanitary Association. See "British Medical Journal," January 20th, 1906, page 151.

Discussions are invited on the subject of Infantile Mortality at a National Conference to be held in London in June, 1906. An International Congress is also proposed to be held in London in August on School Hygiene. I sincerely trust that resolutions will be passed for the compulsory registration of births within 48 hours of each birth, and that legislation will speedily follow.

## HOUSES.

The distribution over 5,031 acres of 4,565 inhabited houses in ten parishes is given on page 18 of my Annual Report for 1902; so also on the same page their distribution in each separate Ward.

The annual progress since the Census in 1901, of house-building, from information received from the office of Mr. Parker, City Surveyor, is given below:—

| Date. | New Houses for which Plans have been approved. | Other Buildings. | New Houses completed and inspected. | Other Buildings. |
|---|---|---|---|---|
| During the Year 1901 | 79 | 6 | 43 | 7 |
| ,, ,, 1902 | 78 | 6 | 36 | 6 |
| ,, ,, 1903 | 50 | 12 | 65 | 11 |
| ,, ,, 1904 | 51 | 16 | 50 | 8 |
| ,, ,, 1905 | 69 | 5 | 38 | 4 |

On the Moor Estate, in Grandstand Road, building is progressing under the auspices of the Hereford City and County Benefit Building Society.

Roads and connections of the water supply and drainage system are completed on the Moor Park Estate in the Whitecross neighbourhood.

Houses for the Working Classes.—Of the various schemes proposed for the amendment and disposition of a large area in Bewell Street not one has been accepted by the Council. The rejection of these designs, some of them very clever, but considered too costly, has been followed by an inspection by the Sanitary Sub-Committee of several dwellings and premises presenting insanitary and otherwise undesirable conditions in various quarters of the city. I have read a copy of the Report of the Sanitary Inspector appended to this, my Report. The details are more fully treated that I beg to refer you to his Report.

Registered Common Lodging Houses.—I can do nothing more than repeat the usual annual animadversion of them, seven in number, as to their age and out of date character.

Private Slaughter Houses.—These still remain, five in number, the majority of them objectionably close to dwelling houses.

Public Slaughter-House.—The satisfactory conduct of this conveniently and favourably situated open-to-the-air Public Abattoir continues. Its annual use by butchers is given in the subjoined Table :—

| | | 1900. | 1901. | 1902 | 1903. | 1904. | 1905. |
|---|---|---|---|---|---|---|---|
| Beeves .. | 1s. | 959 | 1,122 | 1,183 | 1,142 | 1,146 | 1,289 |
| Calves .. | 6d. | 429 | 432 | 424 | 338 | 358 | 410 |
| Sheep .. | 2d. | 4,441 | 4,401 | 4,760 | 5,002 | 5,222 | 4,780 |
| Lambs .. | 2d. | 1,131 | 1,139 | 1,385 | 1,391 | 1,572 | 1,309 |
| Pigs (Pork) | 6d. | 1,405 | 1,100 | 1,198 | 1,338 | 1,366 | 1,225 |
| ,, (Bacon) | 9d. | 149 | 113 | 164 | 508 | 380 | 391 |
| TOTAL .. | | 8,514 | 8,307 | 9,114 | 9,719 | 10,044 | 9,404 |

During 1905 the Piggeries have been in use 133 times.

Seizure and Condemnation of Unfit Meat.—This subject is treated in detail in the appended Report of the Sanitary Inspector, including the seizure of 791 pounds of meat deposited in the Market Hall in the month of September, where it was neglected until it became unfit for food.

Dairies, Cowsheds, Milkshops, and Purveyors of Milk.—These are all registered in accordance with the Order of 1885. The premises have all been visited frequently by both the Sanitary Inspector and myself, sometimes in company, and more often independently. Samples have been more frequently taken for analysis, with very rarely an unfavourable report. The summary will be found in the Sanitary Inspector's Report. The essential inspection of cattle and cowsheds outside our boundaries unfortunately still continues by law beyond our jurisdiction.

SALE OF FOOD AND DRUGS ACT.—Satisfactory results of analysis will be found in the above referred to Report ; gratifying to your citizens and tradesmen and to visitors to your city.

GAS AND LIGHTING OF THE CITY.—Our main streets are excellently lighted with gas and incandescent mantles. Annually the extension is made to some of the outlying suburbs. In my own house I have seen the pressure taken in the earlier and later hours of the day, and not found wanting. The average weekly candle-power is given in every monthly Report to the Town Council. Where complaints have been made in individual cases, I have often known them remedied, to the surprise of the complainant, in a short time, by a visit to his dwelling by one of the Gas-fitters after representation to the Superintendent of the Gas Department. The defects are almost invariably found to be local, and remedied by a small expenditure. People forget that gas-burners will not last for ever, and small gas-piping will more or less always and everywhere be liable to incrustations.

The numerous products of combustion from gas, however purely manufactured, are injurious to health in the absence of the introduction of a change of the air by the admission of more oxygen, in other words, by ventilation. We must bear in mind that "An ordinary flat flame gas-jet consumes about five times as much oxygen and produces about three times as much carbonic acid as an adult man. . . All gas contains a certain proportion of sulphur. . . . and the sulphuric and sulphurous acids arising from this may make the air of a room decidedly unpleasant. If, however, the gas is fairly purified from bisulphide of carbon, and particularly if incandescent mantles are used, no trouble should arise from this source, provided the $CO_2$ in the air does not exceed about 20 volumes per 10,000." (Haldane).

GAS COOKING-STOVES.—The ventilation of the room in which these are used is of paramount importance. There is a remarkable ignorance upon this point, and our citizens will shortly be instructed by scholars from our Public Elementary Schools where the principles of Hygiene have been taught. I am perfectly aware of the prevalence of gas cooking-stoves by the thousand in our large towns. I am informed that twenty thousand may be in use in Birmingham. Let us not in Hereford excuse ourselves by taking refuge under the plea that the provision of ventilation is not made elsewhere.

The subject of invalids warming themselves by means of gas stoves when they would be securing better health by the open-air system has been again brought to our notice.

Whilst looking forward to the furtherance of our desires, I will for the present be content with repeating an extract from page 21 of my Health Report for 1903, followed by a letter of the Gas Manager to the Gas Committee.

The use of the Gas Stove has become very popular, and for convenience, comfort, economy, and cleanliness is deservedly recommended; moreover, its general use must contribute in no small degree to the advantage of the atmosphere of the City by the diminution of smoke from the chimneys over the open grates.

PRECAUTIONS.—Although the gas jets of gas stoves are made on the Bunsen-burner principle, it must not be supposed that cooking can be safely carried on in any dark hole or corner remote from ventilation; where ventilation is absent it must be secured by means of a hood with a connecting flue, either directly into the air, or into the chimney, to carry off the products of combustion, which are injurious to health.

The Penny-in-the-slot system of Gas supply has been increasing, and is likely to increase further. The general patron is not one who would countenance further expense in providing ventilation where it was required. Mr. Parlby, Superintendent of the Gas Works, upon whom I have impressed the necessity of the selection by the fitter of a suitable position for the gas stove, has suggested that the attention of architects and builders should be called to the advisability of making a small recess for cooking by gas stoves in some position readily adaptable for ventilation.

*Subjoined is a Copy of the Gas Manager's Report to the Gas Committee re Ventilation of Gas Cooking Stoves in places inadequately ventilated.*

GAS WORKS, HEREFORD.
March 10th, 1906.

GENTLEMEN,

As directed by the Committee, I have had an interview with the Medical Officer of Health relative to the question of the ventilation of Gas Cooking Stoves in Consumers' Premises which are inadequately ventilated, and he informed me that he had practically but little to add to the observations contained on page 21 of his Annual Report for the year 1903.

The Committee will see on referring to the Report named that when the subject was first mentioned I suggested that the attention of Architects and Builders should be directed to the advisability of providing a special recess for the Gas Cooker in some position suitable for effective ventilation.

As an illustration of the best place for this recess, I have prepared a drawing, which I now submit for your inspection, showing the recess on the side of the Coal Fire Range with the Gas Cooker fixed therein, the products of combustion being carried into the flue.

Such an arrangement, if adopted in all new houses and to existing fireplaces when alterations could be carried out, would entirely overcome the objections mentioned in the Medical Officer's Report.

Where it is not possible to secure this recess, I am of opinion there is no better way of improving the ventilation in these cases than by means of a hood which should be fixed above the hot-plate of the Cooker, and by fixing a length of flue pipe to the back of the oven, so as to convey the products of combustion from the hot-plate and oven into the chimney. The carrying out of this second suggestion, however, would be somewhat difficult in practice, as in many cases cupboards would be in the way and the stoves could not be fixed near the chimney unless placed in front of the fire-range; some consumers would not consent to this, and even where practicable, it would involve the cutting of the brick-work of the chimney, to which the owners of the property might not agree. Then the question of defraying the cost of the work, including the providing of the iron hood, the flue pipes, and the fixing would have to be considered.

Who is to pay for the carrying out of the work?

The difficulty of ventilation, I may say, chiefly arises in the smaller houses which were built a number of years ago, when cooking by gas was not thought of, and I regret to say that very little progress has been made in some of the more modern houses where we are asked to fix Cookers.

Moreover, the question of ventilation generally is one which I think deserves attention as much as the special one of the ventilation of Gas Cookers.

Where the recess is not provided, and where the hood and flue pipes are not practicable, we advise the consumer to have the Cooker fixed near a window, if there is no better position available, as the air of the room can be kept fresh by raising the sash of the window, or if necessary by the opening of the door at intervals.

I think, however, Gas Cooking Stoves have been sometimes complained of when the fault has been really with the consumer, as not infrequently we have to send to examine stoves which have been allowed to get into a dirty condition, the sides of the oven being coated with burnt fat owing to never being wiped out or cleaned, whilst the hot-plate burners are allowed to get greasy and dirty, and when this is the case, the atmosphere of the room becomes objectionable.

Some consumers, too, make the great mistake of using on the Gas Cooker the sooty utensils they use on the coal fire. It is therefore not to be wondered at that the smell in the kitchen or living room is not only offensive but injurious to health.

I saw a case quite recently where a sooty black kettle, which earlier in the day had been used on a coal fire, was in the afternoon placed on the hot-plate of the Gas Cooker, and the smell from the partly consumed carbon of the soot was not merely confined to the kitchen and living room, but permeated the adjoining shop.

I endorse generally the views of the Medical Officer of Health as to the desirability of the improved ventilation of Gas Cookers in places inadequately ventilated, but I think the Committee is justified in asking for the co-operation of the owners of property, the tenants themselves, and the Architects and Builders of the City; and if at any future time the Bye-laws are revised, I think a clause dealing effectually with the questions now raised might be introduced.

Yours respectfully,
WILLIAM PARLBY,
*Gas Manager.*

*To the Chairman and Members of the*
*Gas Committee, Hereford.*

## WATER SUPPLY.

The quality of our Water continues excellent, and has been invariably found good on chemical examination, whether at my own house, or at the Town Hall. My attention has been called to a local rusty colouration which was found due to iron in very old domestic pipes. Every householder may readily obtain security from any temporary disturbance by an investment in a Chamberland-Pasteur filter applied to his service pipe, such as I have had in my own house for many years. I have seen the same in the Bishop's Palace. It is the best filter in the world, but does not filter so rapidly as the Berkefeld filter, which is in use in our Public Library, and was presented to the Library by the Bishop of Hereford. See my Health Report, 1901, pages 22 and 23.

It is incumbent on me to repeat my annual convictions that the area of our Filter Beds is not sufficient. See my Health Report, 1904, pages 20, 21. We ought to have one or more Filter Beds to allow for the contingency when one of the other Beds is being cleaned.

For the same reasons the connections of each "Clear-water Tank" with the Main would permit the cleaning out of any one of them without having to cut off the supply to the City. Numerous water insects, bred in the water, become winged in one stage of their life transformation. When the door of our Clear-water Tank is open, an aquatic insect in its winged stage may readily fly into the tank, and deposit its eggs, to eventually breed and have its offspring conveyed into our city pipes. This of course is inevitable everywhere, and although perfectly harmless, is liable to create alarming and groundless suspicions as to the efficient filtration of our water.

Every householder, timid or provident, should have a Chamberland-Pasteur Filter.

## FACTORIES AND WORKSHOPS.

Frequent inspections have been made of Factories, Workshops, Workplaces, and Homeworkers' Premises. We have often met H.M. Inspector in his surprise visits to our City, and carried out instructions when brought to our notice. A summary is given in the Annual Report, herewith appended, to be forwarded to the Secretary of State.

Here again is a branch of Inspector's work particularly appropriate for a Lady Health Visitor acting as Inspector of Milliners' Work-rooms, and of other various premises where female labour is employed. Investigations of a delicate character would be more readily conducted by a Female Inspector, whilst modesty forbids complaints being made without reluctance to a Male Inspector.

# ANNUAL REPORT

OF THE

# Medical Officer of Health for 1905,

## URBAN DISTRICT OF HEREFORD,

*On the administration of the Factory and Workshop Act,*

IN CONNECTION WITH

**Factories, Workshops, Laundries, Workplaces, and Homework.**

## I.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

| Premises. | Number of | | |
|---|---|---|---|
| | Inspections. | Written Notices. | Prosecutions. |
| FACTORIES ..<br>(Including Factory Laundries). | 17 | 3 | |
| WORKSHOPS ..<br>(Including Workshop Laundries). | 66 | 16 | |
| WORKPLACES .. | 6 | 2 | |
| HOMEWORKERS' PREMISES .. | 93 | 9 | |
| TOTAL .. | 182 | 30 | |

## 2.—DEFECTS FOUND.

| Particulars. | Number of Defects. | | | Number of Prosecutions. |
|---|---|---|---|---|
| | Found. | Remedied. | Referred to H.M. Inspector. | |
| *Nuisances under the Public Health Acts:—** | | | | |
| Want of cleanliness .. | 13 | 12 | — | — |
| Want of ventilation .. | 2 | 1 | — | — |
| Overcrowding .. | — | — | — | — |
| Want of drainage of floors .. | — | — | — | — |
| Other nuisances .. | 8 | 7 | — | — |
| †Sanitary accommodations: insufficient .. | — | — | — | — |
| †Sanitary accommodations: unsuitable or defective .. | 7 | 6 | — | — |
| †Sanitary accommodations: not separate for sexes .. | 1 | | — | — |
| *Offences under the Factory and Workshop Act:* | | | | |
| Illegal occupation of underground bakehouse (S. 101) .. | — | — | — | — |
| Breach of special sanitary requirements for bakehouses (SS. 97 to 100) .. | 4 | 4 | — | — |
| Failure as regards lists of outworkers (S. 107) .. | | — | — | |
| Giving out work to be done in premises which are unwholesome (S. 108) .. | 2 | 2 | | — |
| Giving out work to be done in premises which are infected (S. 110). | 1 | 1 | — | — |
| Allowing wearing apparel to be made in premises infected by scarlet fever or small-pox (S. 109) .. | — | | — | — |
| Other offences .. | — | — | — | — |
| Total .. | 38 | 33 | — | |

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* Including those specified in Sections 2, 3, 7 and 8, of the Factory Act as remediable under the Public Health Acts.

† As to Section 22 of the Public Health Acts Amendment Act, 1890, which was adopted in April, 1891. The standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops will be in accordance with that determined by the Secretary of State, as laid down in "The Sanitary Accommodations Order of 4th February, 1903. No. 89."

## 3—.OTHER MATTERS.

| Class. | | Number. | |
|---|---|---|---|
| Matters notified to H.M. Inspectors of Factories :— | | | |
| Failure to affix Abstract of the Factory and Workshop Act (S. 133) | | | |
| Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) | Notified by H.M. Inspector | 14 | |
| | Reports (of action taken sent to H.M. Inspectors | 15 | |
| Other | | | |
| Underground Bakehouses (S. 101) :— | | | |
| Certificates granted during the year | | | |
| In use at the end of the year | | 2 | |
| | | Number of | |
| Homework :— | | Lists. | Out-Workers. |
| *List of Outworkers** (S. 107) :— | | | |
| Lists received | | 51 | 183 |
| Addresses of outworkers | forwarded to other Authorities | — | — |
| | received from other Authorities | — | — |
| *Homework in unwholesome or infected premises* :— | | Wearing Apparel. | Other. |
| Notices prohibiting homework in unwholesome premises (S. 108) | | 2 | — |
| Cases of infectious disease notified in homeworkers' premises | | 1 | — |
| Orders prohibiting homework in infected premises (S. 110) | | 1 | — |
| Workshops on the Register (S. 131) at the end of the year. | | | |
| Important classes of Workshops, such as workshop bakehouses, may be enumerated here | Workshops | 101 | |
| | Workshop Bakehouses | 27 | |
| | Workshops Domestic | 6 | |
| | Workplaces | 27 | |
| Total number of Workshops on Register | | 161 | |

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* The Lists to be received twice in the year.

In conclusion, Mr. Mayor and Gentlemen, I congratulate you on the gradually diminishing death-rate in your City. The comparison with the previous ten years will be seen on reference to column 13 of Table I. The Infant Mortality stands enviably low, for a City of your population, at 78 per thousand births registered during the same period. The gratifying absence of the death of any infant from infantile diarrhœa, or from any of the infectious diseases, will be seen at a glance down the newly-introduced Table V. Further explanatory remarks on this important subject will be found on pages 17 and 8 of my Report.

The lamentable results of the outbreak of Diphtheria at the close of an otherwise remarkably satisfactory year, are too distressing to call for further remarks to those already given.

My Annual Health Report does not appear with its accustomed punctuality. In the very earlier weeks of the year, finding every available moment was urgently required to deal with the consequences of the invasion at the latter end of 1905 of Diphtheria, I communicated the facts to the Secretary of the Local Government Board, from whom I received a polite appreciation of the exigencies justifying delay in the preparation of my Report.

I am, Mr. Mayor and Gentlemen,
Your obedient servant,
H. CECIL MOORE, M.R.C.S., &c.

*Medical Officer of Health, City of Hereford ; Fellow of the Incorporated Society Medical Officers of Health ; Fellow of the Royal Institute of Public Health ; Member of the Royal Sanitary Institute.*

## TABLE I.

# HEREFORD URBAN DISTRICT.

## Vital Statistics of Whole District during 1905 and previous years.

| Year. | Population estimated to middle of each year. | Births. | | Total Deaths Registered in the District. | | | | Total Deaths in Public Institutions in the District. | Deaths of Non-residents registered in Public Institutions in the District. | Deaths of Residents registered in Public Institutions beyond the District. | Nett Deaths at all Ages belonging to the District. | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Under 1 Year of Age. | | At all Ages. | | | | | | |
| | | Number. | Rate.* | Number. | Rate per 1000 Births registered. | Number. | Rate.* | | | | Number. | Rate.* |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1895 | 20720 | 578 | 27·9 | 80 | 138 | 396 | 19·1 | 63 | 30 | 5 | 371 | 17·9 |
| 1896 | 20860 | 548 | 26·2 | 81 | 148 | 385 | 18·4 | 72 | 27 | 5 | 363 | 17·4 |
| 1897 | 21000 | 553 | 26·3 | 66 | 119 | 382 | 18·1 | 76 | 37 | 6 | 351 | 16·7 |
| 1898 | 21140 | 544 | 25·7 | 76 | 140 | 364 | 17·2 | 62 | 27 | 6 | 343 | 16·2 |
| 1899 | 21250 | 519 | 24·4 | 73 | 140 | 384 | 18·0 | 78 | 39 | 12 | 357 | 16·8 |
| 1900† | 21270 | 512 | 24·7 | 63 | 123 | 394 | 18·5 | 73 | 28 | 8 | 374 | 17·6 |
| 1901 | 21400 | 496 | 23·1 | 63 | 127 | 379 | 17·7 | 90 | 39 | 5 | 345 | 16·1 |
| 1902 | 21550 | 526 | 24·4 | 59 | 112 | 362 | 16·7 | 70 | 27 | 9 | 344 | 15·9 |
| 1903 | 21700 | 564 | 25·9 | 78 | 138 | 388 | 18·1 | 82 | 40 | 5 | 353 | 16·2 |
| 1904 | 21900 | 489 | 22·3 | 59 | 120 | 355 | 16·0 | 101 | 33 | 9 | 331 | 15·1 |
| Averages for years 1895–1904 | 21279 | 532 | 25·0 | 69 | 130 | 378 | 17·1 | 76 | 32 | 7 | 353 | 16·5 |
| **1905** | **22050** | **525** | **23·8** | **41** | **78** | **345** | **15 6** | **85** | **39** | **4** | **310** | **14·05** |

* Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

† This estimate of population for the year 1900 is calculated upon the withdrawal of Reserves, Militia, and Volunteers to South Africa.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district, including citizens who have died in the Lunatic Asylum. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

| I. | II. | III. |
|---|---|---|
| Institutions within the District receiving sick and infirm persons from outside the District. | Institutions outside the District receiving sick and infirm persons from the District. | Other Institutions the Deaths in which have been distributed among the several localities in the District. |
| Workhouse.<br>Hereford General Hospital | Lunatic Asylum. | Isolation Hospital. |

| Area of District in acres (exclusive of area covered by water). | 5,031 | Total population at all ages, | 21,382 | At Census of 1901 |
|---|---|---|---|---|
| | | Number of inhabited houses, | 4,565 | |
| | | Average number of persons in each house .. .. | 4·68 | |

TABLE II.

# HEREFORD URBAN DISTRICT.

## Vital Statistics of Separate Localities in 1905 and previous years.

| Names of Localities. | Whole District. | | | | Ledbury Ward. | | | | Leominster Ward. | | | | Monmouth Ward. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year. | Population estimated to middle of each year. | Births registered. | Deaths at all Ages. | Deaths under 1 year. | Population estimated to middle of each year | Births registered. | Deaths at all Ages. | Deaths under 1 year. | Population estimated to middle of each year. | Births registered. | Deaths at all Ages. | Deaths under 1 year. | Population estimated to middle of each year. | Births registered. | Deaths at all Ages. | Deaths under 1 year. |
| | *a* | *b* | *c* | *d* | *a* | *b* | *c* | *d* | *a* | *b* | *c* | *d* | *a* | *b* | *c* | *d* |
| 1901 .. | 21400 | 496 | 345 | 63 | 8211 | 182 | 122 | 25 | 7935 | 193 | 140 | 24 | 5254 | 121 | 83 | 14 |
| 1902 .. | 21550 | 526 | 344 | 59 | 8259 | 186 | 125 | 23 | 8008 | 221 | 137 | 24 | 5283 | 119 | 82 | 12 |
| 1903 .. | 21700 | 564 | 353 | 78 | 8313 | 208 | 132 | 25 | 8073 | 229 | 137 | 38 | 5314 | 127 | 84 | 15 |
| 1904 .. | 21900 | 489 | 331 | 59 | 8408 | 177 | 125 | 21 | 8148 | 204 | 116 | 24 | 5344 | 108 | 90 | 14 |
| Averages of Years 1901 to 1904. | 21638 | 519 | 342 | 65 | 8298 | 188 | 126 | 23 | 8041 | 212 | 132 | 27 | 5299 | 119 | 85 | 14 |
| **1905** | **22050** | **525** | **310** | **41** | **8456** | **183** | **116** | **16** | **8238** | **248** | **118** | **14** | **5356** | **94** | **76** | **11** |

TABLE III.

## HEREFORD URBAN DISTRICT.

### Cases of Infectious Disease notified during the Year 1905.

| Notifiable Disease. | Cases Notified in Whole District. | | | | | | | Total Cases Notified in each Locality. | | | | | No. of Cases removed to Hospital from each Locality. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At all Ages. | At Ages—Years. | | | | | | | | | | | | | | | |
| | | Under 1. | 1 to 5 | 5 to 15 | 15 to 25 | 25 to 65 | 65 and upwards | Ledbury Ward. H.G.H. W. | Leominster Ward. | Monmouth Ward. | Workhouse. W. | General Hospital. H.G.H. | Ledbury Ward. H.G.H. W. | Leominster Ward. | Monmouth Ward. | Hereford General Hospital. | TOTAL. |
| Small-pox .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Cholera .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Diphtheria .. .. | 52 | .. | 14 | 25 | 6 | 7 | .. | 26 | 21 | 4 | .. | 1 | 2 | 7 | 2 | .. | 11 |
| Membranous Croup .. | 3 | .. | 2 | 1 | .. | .. | .. | 1 | 2 | .. | .. | .. | .. | .. | .. | .. | .. |
| Erysipelas .. .. | 44 | 2 | 2 | 5 | 5 | 23 | 7 | 12 | 20 | 12 | .. | .. | .. | .. | .. | .. | .. |
| Scarlet Fever .. | 55 | .. | 6 | 32 | 11 | 6 | .. | 13 | 22 | 11 | .. | 9 | 13 | 10 | 3 | 9 | 35 |
| Typhus Fever .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Enteric Fever .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Relapsing Fever .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Continued Fever .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Puerperal Fever .. | 3 | .. | .. | .. | .. | 3 | .. | 1 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. |
| Plague .. .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Chicken Pox .. .. | 88 | 7 | 23 | 46 | 11 | 1 | .. | 42 | 34 | 12 | .. | .. | .. | .. | .. | .. | .. |
| **Totals** .. .. | 245 | 9 | 47 | 109 | 33 | 40 | 7 | 95 | 100 | 40 | .. | 10 | 15 | 17 | 5 | 9 | 46 |

The Isolation Hospital for Infectious Diseases is in the Parish of Tupsley, in Ledbury Ward, within the Liberties of the City.
The Isolation Hospital for Small-pox is in the Parish of Hampton Bishop outside the Liberties of the City
The Workhouse (W.) and the General Hospital (G. H.) are both in the Ledbury Ward.

TABLE IV.

## HEREFORD URBAN DISTRICT.

### Causes of, and Ages at, Death during Year 1905.

| CAUSES OF DEATH. | DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING IN OR BEYOND THE DISTRICT. | | | | | | | DEATHS AT ALL AGES OF "RESIDENTS" BELONGING TO LOCALITIES, WHETHER OCCURRING IN OR BEYOND THE DISTRICT | | | | | | | Total Deaths whether of Residents or "Non Residents" in Public Institutions in the District. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | All Ages. | Under 1 year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 65 | 65 and upwards | Ledbury Ward. | Leominster Ward. | Monmouth Ward. | Workhouse. | Hospital. | Isolation Hospital. | Non-Residents. | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Small-pox | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Measles | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. |
| Scarlet fever | 1 | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | 1 |
| Whooping-cough | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. |
| Diphtheria and Membranous Croup | 11 | .. | 6 | 5 | .. | .. | .. | 8 | 2 | 1 | .. | 2 | 1 | .. | 3 |
| Croup | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Fever { Typhus | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Fever { Enteric | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Fever { Other continued | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Epidemic Influenza | 9 | .. | .. | .. | 1 | 1 | 7 | 1 | 6 | 2 | 1 | .. | .. | .. | 1 |
| Cholera | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Plague | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Diarrhœa | 1 | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | 1 | 1 |
| Enteritis | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. |
| Puerperal Fever | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. |
| Erysipelas | 1 | .. | .. | .. | .. | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. |
| Other Septic Diseases | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 | 2 |
| Phthisis (Pulmonary Tuberculosis) | 20 | .. | .. | .. | 3 | 16 | 1 | 5 | 6 | 9 | 4 | .. | .. | .. | 4 |
| Other Tubercular Diseases | 13 | 4 | 4 | 3 | 1 | 1 | .. | 5 | 6 | 2 | 1 | 4 | .. | 2 | 7 |
| Cancer, Malignant Disease | 21 | .. | .. | .. | 1 | 10 | 10 | 12 | 4 | 5 | 1 | 3 | .. | 2 | 6 |
| Bronchitis | 26 | 4 | 3 | 1 | .. | 3 | 15 | 8 | 14 | 4 | .. | 1 | .. | 2 | 3 |
| Pneumonia | 25 | 6 | 5 | 2 | 2 | 6 | 4 | 9 | 10 | 6 | .. | 2 | .. | 4 | 6 |
| Pleurisy | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Other Diseases of Respiratory Organs | 5 | 1 | .. | .. | .. | 1 | 3 | 1 | 4 | .. | .. | 1 | .. | .. | 1 |
| Alcoholism } | .. | .. | .. | .. | .. | .. } | .. } | .. | .. | .. } | .. | .. | .. | .. | .. |
| Cirrhosis of Liver } | 2 | .. | .. | .. | .. | 1 } | 1 } | .. | .. | 2 } | .. | .. | .. | .. | .. |
| Venereal Diseases | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Premature Birth | 7 | 7 | .. | .. | .. | .. | .. | 3 | 1 | 3 | .. | .. | .. | 1 | 1 |
| Diseases and Accidents of Parturition | 2 | .. | .. | .. | 2 | .. | .. | .. | 1 | 1 | .. | 1 | .. | .. | 1 |
| Heart Diseases | 40 | 1 | 1 | .. | 2 | 18 | 18 | 19 | 14 | 7 | 5 | 2 | .. | 8 | 15 |
| Accidents | 2 | .. | .. | .. | .. | 2 | .. | .. | .. | 2 | .. | .. | .. | 3 | 3 |
| Suicides | 1 | .. | .. | .. | .. | 1 | .. | 1 | .. | .. | .. | .. | .. | .. | .. |
| Other Inquest Cases | 10 | 1 | 4 | .. | .. | 4 | 1 | 3 | 7 | .. | .. | .. | .. | 1 | 1 |
| All other causes | 109 | 17 | 6 | 1 | 1 | 22 | 62 | 38 | 42 | 29 | 10 | 7 | .. | 12 | 29 |
| **All Causes** | **310** | **41** | **30** | **13** | **13** | **90** | **123** | **116** | **118** | **76** | **22** | **23** | **1** | **39** | **85** |

TABLE V.

# HEREFORD URBAN DISTRICT.

## INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

| Cause of Death. | | Under 1 Week | 1-2 Weeks. | 2-3 Weeks. | 3-4 Weeks. | Total under 1 Month. | 1-2 Months. | 2-3 Months. | 3-4 Months. | 4-5 Months. | 5-6 Months. | 6-7 Months. | 7-8 Months. | 8-9 Months. | 9-10 Months. | 10-11 Months. | 11-12 Months. | Total Deaths under One Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| All Causes | Certified **34**<br>Uncertified **7** | | | | | | | | | | | | | | | | | |
| Common Infectious Diseases | Small-pox | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Chicken-pox | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Measles | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Scarlet Fever | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Diphtheria : Croup | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Whooping Cough | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Diarrhœal Diseases | Diarrhœa, all forms | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Enteritis (*not Tuberculous*) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Gastritis Gastrointestinal Catarrh | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Wasting Diseases | Premature Birth | 6 | .. | .. | 1 | 7 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7 |
| | Congenital Defects | 1 | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 |
| | Injury at Birth | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Want of Breast-milk | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Atrophy, Debility, Marasmus | 2 | 1 | 2 | .. | 5 | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 7 |
| Tuberculous Diseases | Tuberculous Meningitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 1 |
| | Tuberculous Peritonitis : Tabes Mesenterica | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Other Tuberculous Diseases | .. | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | 1 | .. | 1 | .. | 3 |
| | Erysipelas | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Syphilis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Rickets | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Meningitis (*not Tuberculous*) | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Convulsions | 5 | .. | .. | .. | 5 | .. | 2 | .. | 2 | .. | .. | .. | .. | .. | 1 | .. | 10 |
| | Bronchitis | .. | .. | .. | .. | .. | 1 | .. | .. | .. | .. | .. | .. | 2 | .. | 1 | .. | 4 |
| | Laryngitis | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Pneumonia | .. | 1 | 1 | .. | 2 | .. | .. | 1 | .. | 1 | 1 | .. | .. | .. | .. | 1 | 6 |
| | Suffocation, overlaying | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Other Causes | 2 | .. | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 2 |
| | | 16 | 2 | 3 | 1 | 22 | 3 | 3 | 1 | 2 | 2 | 1 | .. | 3 | .. | 3 | 1 | 41 |

District—CITY OF HEREFORD.

Population (Estimated to middle of 1905) **22,050.**

Births in the year: **525.** { Legitimate, **488.**
Illegitimate (Citizens) **29**, or (including 8 whose parents were non-residents), **37.**

Deaths from All Causes at All Ages, **310.**

# Annual Report of the Medical Officer of Health.
# City of Hereford, 1905.

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# CITY OF HEREFORD

# ANNUAL REPORT

OF THE

# Sanitary Inspector.

1905.

BY

SIDNEY PROTHEROE,

Associate Royal Sanitary Institute.

# CITY OF HEREFORD.

## REPORT OF THE SANITARY INSPECTOR FOR THE YEAR ENDING DECEMBER 31ST, 1905.

TOWN HALL,
HEREFORD,
APRIL, 1906.

*To the Chairman and Members of the Sanitary Committee*
*Hereford Town Council.*

MR. CHAIRMAN AND GENTLEMEN,

I beg to submit my Report, being the eighth Annual Report I have presented to you, upon the work done in connection with my department during the year 1905, which includes observations upon questions relating to the Housing of the Working Classes, Over-crowding, and Private Slaughterhouses, reforms for which are greatly needed.

### NOTICES SERVED.

For the abatement of nuisances under the Public Health Acts and the remedying of contraventions of the Bye-laws and other Statutes which come under the duties of an Inspector, 288 Notices were served. Of these only 9 were served at the instance of the Sanitary Authority, the others being preliminary Notices respecting defects and other matters which it was not found necessary to report to you. The number of Notices served is no guide to the number of nuisances detected, as several nuisances are included in one Notice. It is very pleasing to be able to report that owners of property generally execute the requirements of this department without friction and recourse to legal proceedings. In a few instances only has it been necessary for me to ask for authority to institute proceedings, but happily such a course has not had to be adopted during the year.

In addition to the Notices served, 204 letters were written respecting them, and 26 reports were made to the City Surveyor respecting dangerous buildings, wastes of water, and other matters connected with his department.

The following Table shows the number of Notices served since my appointment in 1898 :—

| | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 |
|---|---|---|---|---|---|---|---|---|
| Preliminary Notices .. | 310 | 428 | 508 | 640 | 474 | 354 | 383 | 279 |
| Statutory Notices .. | 18 | 92 | 38 | 30 | 64 | 35 | 13 | 9 |

## SANITARY WORK AND SUPERVISION.

Details of the Sanitary Work carried out have been reported to the Monthly Meetings of the Town Council through the medium of the Sanitary Committee's Report, and a detailed Report for the past year is appended.

The inspection of house drains and sanitary fittings, and the supervision of alterations thereto, usually occupies the greater portion of the time of the Sanitary Inspector, and during the past year a large amount of sanitary work has been performed.

There can be no doubt that the improved sanitary conditions in and around dwellings must have an immense beneficial effect on the health of the inhabitants, and I think I can safely claim that the decreasing death-rate, which the Medical Officer of Health has the pleasure of recording, can be largely attributed to this, as the depressing influences of insanitary surroundings must have a tendency to increase the infant mortality especially.

The following summary gives details of the sanitary work carried out and the nuisances abated during the year 1905, as compared with 1904, together with the work done during the years 1898 to 1903 inclusive :—

| | 1898-1903 | 1904 | 1905 |
|---|---|---|---|
| **Drainage**— | | | |
| Obstructed drains opened and cleansed | 350 | 92 | 39 |
| Defective drainage repaired or relaid | 954 | 240 | 179 |
| Houses with insufficient drainage, extra provided | 68 | 11 | 13 |
| Houses connected to public sewer | 27 | 0 | 2 |
| Drains disconnected from River Wye or brooks | 21 | 0 | 0 |
| Glazed stoneware gullies fixed | 1574 | 303 | 214 |
| Patent " Ball " traps fixed in areas and cellars | 6 | 1 | 0 |
| Grease interceptors fixed | 13 | 3 | 4 |
| Drains removed from inside or underneath houses | 131 | 19 | 13 |
| ,, ,, ,, washhouses | 66 | 11 | 6 |
| Sewer interceptors fixed | 131 | 23 | 21 |
| Disconnecting and inspection chambers constructed | 264 | 72 | 50 |
| Inspection chambers repaired | 25 | 3 | 12 |
| Ventilating shafts fixed or repaired | 235 | 46 | 46 |
| New cesspools constructed | 9 | 1 | 1 |
| Cesspools cleansed out | 19 | 10 | 5 |
| ,, provided with air-tight covers | 13 | 4 | 2 |
| ,, abolished | 6 | 4 | 2 |
| Filtering beds constructed | 0 | 0 | 1 |
| **Water Closets, Privies, and Urinals**— | | | |
| Obstructed W.C.'s opened and cleansed | 279 | 31 | 27 |
| Dilapidated W.C.'s repaired | 414 | 90 | 47 |
| ,, ,, rebuilt | 75 | 9 | 5 |
| New " washdown " basins fixed | 296 | 64 | 36 |
| New seats fixed to W.C.'s | 131 | 49 | 35 |
| Floors of W.C.'s relaid | 102 | 22 | 22 |
| Roofs of W.C.'s repaired | 130 | 21 | 18 |

| | 1898-1903. | 1904. | 1905. |
|---|---|---|---|
| Insanitary " Pan " and other closets removed and pedestal basins fixed | 122 | 33 | 35 |
| Soil-pipes removed from inside houses | 16 | 5 | 2 |
| ,, repaired or renewed | 67 | 13 | 23 |
| Anti-syphon pipes fixed to W.C.'s | 0 | 0 | 3 |
| Insufficient accommodation, extra W.C.'s or earth-closets erected | 73 | 9 | 3 |
| W.C.'s and earth-closets converted into automatic flushing trough water-closets | 11 | 0 | 0 |
| Water supply provided to W.C.'s | 117 | 24 | 10 |
| Automatic flushing apparatus repaired or new provided | 361 | 73 | 68 |
| Automatic flushing cisterns fixed | 4 | 0 | 0 |
| Filthy water and earth-closets limewashed | 329 | 81 | 32 |
| Privies converted into water-closets | 9 | 1 | 2 |
| ,, ,, ,, earth-closets | 58 | 8 | 9 |
| ,, cleaned out and abolished | 7 | 0 | 1 |
| Urinals constructed | 16 | 0 | 1 |
| ,, repaired and limewashed | 47 | 4 | 3 |

## Dwelling-houses, etc.

| | | | |
|---|---|---|---|
| Filthy and dilapidated houses cleansed and repaired | 332 | 60 | 29 |
| Houses closed as unfit for habitation | 30 | 7 | 0 |
| Houses stripped and cleansed after infectious disease | 19 | 7 | 8 |
| Schools disinfected or cleansed | 2 | 3 | 1 |
| House roofs repaired | 329 | 53 | 26 |
| Wash-house and kitchen roofs repaired | 125 | 12 | 17 |
| Chimneys raised or repaired | 38 | 29 | 7 |
| Floors relaid or repaired | 140 | 33 | 22 |
| Dangerous stairs and defective windows repaired | 91 | 30 | 12 |
| Dangerous cellar windows repaired | 15 | 0 | 0 |
| Cases of overcrowding abated | 15 | 2 | 1 |
| Dilapidated wash-houses repaired | 62 | 14 | 16 |
| ,, ,, rebuilt | 34 | 6 | 4 |
| Filthy wash-houses lime-washed | 147 | 38 | 26 |
| ,, passages ,, | 3 | 4 | 1 |
| ,, cellars ,, | 8 | 4 | 1 |
| Stagnant water removed from cellars | 16 | 7 | 2 |
| Yards and passages paved or paving relaid | 383 | 45 | 46 |
| Water supply provided to houses | 20 | 5 | 2 |
| Defective pumps repaired | 6 | 5 | 1 |
| Dangerous disused wells filled up | 13 | 4 | 2 |
| Polluted wells closed | 4 | 2 | 1 |
| Wells cleaned out or repaired | 5 | 4 | 1 |

## Sinks, Waste-pipes, and Spouting—

| | | | |
|---|---|---|---|
| Dilapidated sinks repaired | 105 | 15 | 7 |
| New glazed stoneware sinks fixed | 262 | 54 | 33 |
| Waste-pipes provided to sinks | 375 | 69 | 42 |
| Sink-pipes disconnected from drains | 33 | 15 | 16 |
| Bath and Lavatory waste-pipes disconnected from drains | 63 | 9 | 8 |
| Rain-water pipes disconnected from drains | 416 | 85 | 44 |
| Spouting repaired (houses) | 434 | 97 | 80 |
| ,, provided to houses where none existed | 169 | 6 | 6 |

## Keeping of Animals and Manure—

| | 1898-1903. | 1904 | 1905. |
|---|---|---|---|
| Stables paved and drained | 35 | 9 | 7 |
| Floors of slaughter-houses and lairage pens relaid | 1 | 1 | 3 |
| „ „ cowsheds relaid | 7 | 0 | 4 |
| Light and ventilation provided to cowsheds | 11 | 0 | 2 |
| Nuisances from animals improperly kept abated | 154 | 23 | 9 |
| Keeping of swine discontinued | 38 | 5 | 2 |
| Boiling of offal discontinued | 6 | 0 | 0 |
| Pigs-cots repaired or pulled down | 29 | 10 | 0 |
| Accumulation of manure and refuse removed | 261 | 48 | 26 |
| Manure pits repaired | 4 | 1 | 3 |

## Miscellaneous—

| | | | |
|---|---|---|---|
| Dairies and cowsheds limewashed on notice | 23 | 0 | 3 |
| Bakehouses „ „ | 27 | 7 | 4 |
| Slaughterhouses „ „ | 16 | 2 | 2 |
| Tripe boiling places „ „ | 1 | 0 | 0 |
| Workshops „ „ | 39 | 3 | 9 |
| Common lodging-houses „ „ | 72 | 14 | 14 |
| Overcrowding of Workshops abated | 2 | 0 | 0 |
| Drains inside dairies removed | 5 | 0 | 0 |
| „ „ bakehouses removed | 4 | 1 | 0 |
| „ „ slaughterhouses removed | 0 | 0 | 2 |
| „ „ tripe boiling places removed | 3 | 0 | 0 |
| Hoods provided to tripe boiling furnaces or stoves | 3 | 1 | 1 |
| Bakehouse ceilings plastered or boarded | 2 | 2 | 0 |
| Ashpits abolished | 2 | 1 | 0 |

## HOUSING OF THE WORKING CLASSES.

The Housing of the Working Classes, or, more correctly speaking, the Housing of the Poor, is one of the most, if not the most, difficult problem Sanitary Authorities have to face, and your Committee are fully aware of the importance the question demands.

It has been discussed by your Committee, and in November a Sub-Committee was appointed to visit with the Medical Officer of Health and myself, properties occupied by the poorer classes, with a view to seeing the conditions under which they live and to consider what is best to be done to improve their surroundings. Many properties and areas were inspected, and the Medical Officer of Health and myself will eventually report to you upon their sanitary condition after making a house-to-house survey of those selected by the Committee. Many people are living in houses, and under conditions which deny them the common decencies of life.

An area may be declared unhealthy under the Housing of the Working Classes Act, 1890, if (*a*) it contains houses, courts, or alleys unfit for human habitation; (*b*) the narrowness, closeness, and bad arrangement, or the bad condition of the streets and houses, or groups of houses, or want of air, light, ventilation, or any other sanitary defects, are dangerous or injurious to the health of the inhabitants of the buildings in such area or of the neighbouring buildings.

I think there can be no doubt that several properties in the City, constituting small areas, can be declared as "unhealthy," being old, damp, defective in structure, and inadequately lighted and ventilated.

No houses have been condemned during the year under Section 30 of the Act, as there is a natural hesitancy to close dwellings, and before anything is done by closing those which are considered uninhabitable, provision should be made for the persons so displaced. by erecting healthy dwellings elsewhere at a rent they can afford.

The Council have done a little by removing one of the most insanitary blots in the City, in the demolition of the old Bell School and surrounding properties, and the erection in 1901 of 21 dwellings. The rents of the houses, however, are more than the poorer classes can afford, and the consequence is that none of the tenants who were displaced by the scheme have found a home on the site of their former habitations. They have gone to other poorer parts of the town and are living under similar conditions as formerly.

Building has been proceeding actively in several parts of the City, but the class of house erected is beyond the means of the poorer classes. There is need for more cottage accommodation with three bedrooms, but it is a difficult problem, as the present cost of building operations makes it almost impossible to provide houses at a rent within the means of the poor.

## OVERCROWDING.

There are many known cases of overcrowding in the City, but it cannot be considered advisable to institute proceedings, as, in my opinion, the supply of decent houses of the smaller class is out of all proportion to the demand, and an increased number of houses is earnestly to be desired in the near future for the working and respectable poorer classes. Even if notices are served upon the tenants of overcrowded houses, the only result would be to send the people into other houses and so repeat the same evil.

It is a difficult matter to deal with, and our hands are tied until the Council or private enterprise have provided a sufficient number of cheap healthy dwellings.

## SLAUGHTER-HOUSES.

There are five private slaughter-houses in the City, and they are under constant supervision.

From frequent personal inspection, I feel convinced that in every instance the accommodation provided for slaughtering is wholly unsuited for the purpose, and is a source of discomfort to the inhabitants in the immediate vicinity. Looking to their construction and surroundings. none of them can be considered suitable and meeting the requirements of the present day. Three of them are of the rudest and most inadequate description: but, as pointed out in my Annual Report for 1902, owing to the fact that the butchers have obtained the right to slaughter on their present premises merely from long occupation, the Local Authority have only power to deal with them in regard to cleanliness, water supply, drainage, &c., however unsuitable their position and construction may be, until a Provisional Order is obtained.

The Royal Commission on Tuberculosis recommended the Government in 1898 that, when the Local Authority in any town or urban district in England, Wales, and Ireland have provided a public slaughter-house, power be conferred on them to declare that no other place within the town or borough shall be used for slaughtering except that a period of three years be allowed to owners of existing private slaughter-houses to apply their premises to other purposes. Nothing, however, has yet been done towards carrying this into effect.

The Hereford Public Slaughter-house was opened in October, 1866, and, from time to time has been brought more up to date. Here the slaughtering of animals is conducted under hygienic surroundings, and I hope that in the near future the necessary steps will be taken to abolish the old legacies, and that all meat intended for the food of man will be prepared under Municipal control, both for hygienic and humane reasons.

## ANTHRAX.

On October 10th last the Board of Agriculture and Fisheries issued a notice to butchers, knackers, and other persons engaged in slaughtering animals, or in dressing or otherwise handling carcases of animals, warning them against shedding the blood of animals which appeared to be ill from some unknown cause, and against cutting or handling carcases or skins of animals which had died suddenly, until careful enquiries had been made with a view to seeing whether or not any symptoms of Anthrax had been exhibited during life.

Copies of this notice were obtained and sent to all the known persons interested.

## OFFENSIVE TRADES.

The trades coming under the definition of the above heading consist of 2 Fellmongers, 1 Gut Scraper, 1 Tanner and Leather Dresser, and 8 Tripe Boilers. There are two less than the previous year, a Fellmonger and a Tripe Boiler having discontinued.

No action has been rendered necessary in connection with any of them.

## COMMON LODGING HOUSES.

There are still seven Registered Common Lodging-houses in the City, having accommodation for 122 lodgers, and frequent visits have been paid to them. No case of infectious disease occurred at any of the houses.

I have nothing to add to my remarks appearing in previous Annual Reports respecting the condition of these old legacies. The necessary lime-washing, as required by the Public Health Act, has been carried out, but all the houses are getting into a state of decay through age, and it would be impossible to convert them into anything like model places.

## DAIRIES, COWSHEDS, AND MILKSHOPS.

Under the Dairies, Cowsheds, and Milkshops Order of 1885, it is necessary for all persons carrying on the trade of a Cowkeeper, Dairyman, or Purveyor of Milk to be registered with the Local Authority, and, at the end of the past year, the Register contained 13 dairies, 22 cowsheds, and 27 milkshops, together with the names and addresses of 50 purveyors of milk, of which latter 19 reside outside the City, but retail milk within the boundary.

During the year, 212 visits were paid by myself to the premises in the City, and notices were served in seven instances to remedy contraventions of the Regulations made under the Order in respect to paving, drainage, lighting, ventilation, &c.

Cleanliness in the Dairy.—The Board of Agriculture and Fisheries issued in July last a leaflet (No. 151) relating to the above subject, copies of which may be obtained free of charge. Realising the importance of the subject, I obtained copies and sent one to all the known dairymen and cowkeepers in the City, and those outside who supply milk in the City. The leaflet deals with the "Sources of Bacterial Contamination," "Cleanliness in the Management and Housing of Cows," "Cleanliness in Milking," "Importance of Cleanliness in Dairy Utensils to the Milk Seller, and in Butter and Cheese Making."

## WATER SUPPLY.

During the year I collected 19 samples of water, comprising 15 from 13 private wells and 4 from the City mains, for qualitative examination. Two of the samples of well water were forwarded to the City Analyst Dr. A. Bostock Hill, and the remainder to the Medical Officer of Health.

Of the 13 wells, the water was certified in 7 to be unfit for drinking and domestic purposes, and the town water was laid on in three instances, thus supplying 5 houses. The remaining four wells were ordered to be cleaned out and further samples will be submitted. The water in these wells was not used for domestic purposes, but for cattle.

The samples from the town supply were certified by the Medical Officer of Health to be excellent waters, but in one case it contained flocculent matter, principally iron, which was due to rust in the private service pipes, which was afterwards remedied.

## UNSOUND FOOD.

During the past year there were two seizures of unsound food. One consisted of a quantity of beef, 680 pounds, together with the carcases of two sheep weighing 111 pounds. The seizure took place in the Meat Market, and the tenant of the stall was prosecuted for depositing the same there, and was fined £5 and costs, £2 5s. The defendant, however, went to prison, and served one month's hard labour. This butcher was a new-comer to Hereford and has since left the town.

The other seizure consisted of a couple of turkeys, but as they were not exposed or deposited for the purpose of sale and were voluntarily surrendered, no further proceedings were taken.

In July, a quantity of meat exposed for sale in the Market, to which my attention had been drawn, was carefully examined by the Medical Officer of Health and myself, but the circumstances did not justify us in making a seizure. It was, however, removed by the owner and not used for human consumption. The matter was afterwards the subject of an inquiry at a joint meeting of the Markets Committee and Sanitary Committee. I need not here enter into the details, which received the careful attention of the Joint Committee, but I desire to point out that an Inspector has to exercise precautions and discretion in seizing unsound meat, as serious consequences may arise involving the Authority in heavy damages through improper procedure.

## SALE OF FOOD AND DRUGS ACTS, 1875 TO 1899.

The following Table shows the number and nature of articles purchased during the year ending December 31st, 1905, and the result of the analysis:—

| Article. | Number of Samples purchased. | Genuine. | Adulterated. | Cautioned. | Proceedings taken. | Result of Proceedings. | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Dismissed. | Fines. £ s. d. | Costs. £ s. d. |
| New Milk .. .. .. .. .. | 25 | 24 | 1 | .. | .. | .. | .. | .. |
| Butter .. .. .. .. .. | 17 | 17 | .. | .. | .. | .. | .. | .. |
| Cheese .. .. .. .. .. | 2 | 2 | .. | .. | .. | .. | .. | .. |
| †Margarine Cheese .. .. | 1 | .. | .. | .. | .. | .. | .. | .. |
| Lard .. .. .. .. .. .. | 1 | 1 | .. | .. | .. | .. | .. | .. |
| Castor Sugar .. .. .. | 1 | 1 | .. | .. | .. | .. | .. | .. |
| Ice Cream .. .. .. | 1 | 1 | .. | .. | .. | .. | .. | .. |
| Cider .. .. .. .. .. .. | 5 | 5 | .. | .. | .. | .. | .. | .. |
| Peas (Cooked) .. .. .. | 1 | 1 | .. | .. | .. | .. | .. | .. |
| Carbonate of Soda .. .. | 2 | 2 | .. | .. | .. | .. | .. | .. |
| Cotton Seed Oil .. .. | 1 | 1 | .. | .. | .. | .. | .. | .. |
| TOTAL .. .. | 57 | 55 | 1 | .. | .. | .. | .. | .. |

† Not submitted to Analyst, the requirements of Section 6, S. of F. & D. Act 1899, having been complied with.

## OBSERVATIONS.

New Milk.—Of the 25 samples of New Milk, 2 were purchased informally, and 1 was submitted privately. This latter was the only one adulterated, and was deficient of 66 per cent. of its fat, calculated on the minimum standard of the Board of Agriculture. In addition it was coloured with a minute quantity of artificial colouring matter.

Formal samples were thereupon taken, but these proved of very high quality and free from colouring matter and preservatives.

It may be worth recording that out of the 25 samples of New Milk submitted, the City Analyst reported two to be "genuine and of good quality," 4 to be "genuine and of high quality," and 2 to be "genuine and of very high quality." The remainder were reported as "genuine" with the exception of the one referred to above.

Butter.—Of the 17 samples of Butter, 14 were purchased informally, and 1 was submitted privately. All proved genuine.

Other Articles.—The samples of Cheese, Margarine Cheese, and Lard were all purchased informally; the sample of Castor Sugar and 1 of Cider were submitted privately. All proved genuine, although the sample of Cider contained a small quantity of iron salt.

## TESTS FOR FARMERS' MILK.

In May last the Board of Agriculture and Fisheries issued a leaflet (No. 146) relating to this subject. The leaflet states:—"It is a well-known fact that in the vast majority of cases the milk given by the cows of this country exceeds in butter-fat and other milk solids the percentage specified in the 'Sale of Milk Regulations, 1901,' made by the Board of Agriculture. It happens, however, occasionally, that for one reason or another a cow may give milk which does not contain those percentages (3 per cent. of butter-fat and 8.5 per cent. of other milk solids); and in such cases the dairyman, when prosecuted, is required to prove that the milk is genuine. In order to avoid the trouble and annoyance of a prosecution, farmers, dairymen, and all other cowkeepers are strongly recommended to have samples of the milk of their cows tested from time to time. By this means they will be able to watch the seasonal and other variations in the fat contents of the milk, and by modifications in the feeding, housing, or time of milking their cows, and if necessary, by disposing of animals that give milk of low quality, to keep the quality of their milk at a satisfactory level."

"The Board have ascertained that, with the object of assisting farmers in the direction indicated, most of the Agricultural Colleges and Agricultural Departments of the Universities have made arrangements for determining the percentage of butter-fat for a fee of sixpence per sample."

The County of Hereford, however, is not, to my knowledge, associated with any such institution, but milk producers in this County can have their milk tested by the Midland Agricultural and Dairy Institute, Kingston, near Derby, at ninepence a sample.

Instructions are given in the leaflet how to take samples from one cow and from the milk of a herd, and also directions how to send.

Copies of this leaflet have been obtained and forwarded to all the known cowkeepers both in City and County supplying milk in the City.

## FACTORY AND WORKSHOP ACT, 1901.

This Act, which came into operation on January 1st, 1902, makes it compulsory upon Sanitary Authorities to keep a Register of all workshops and workplaces within their district, and your sanitary officials have now similar powers of entry for the purpose of inspection, &c., as H.M. Inspectors of Factories possess.

The carrying out of the provisions of this Act entails a great amount of extra work, both indoor and out, and additional books have now to be kept containing records of inspection, cleanliness, cubic space, number of actual and permissible employés, ventilation, sanitary arrangements, &c., together with a record of premises where home-work is carried on.

The Tables in the Report of the Medical Officer of Health are compiled from the various Registers.

REPORTS FROM H.M. INSPECTOR OF FACTORIES.—During the year 14 Notices of breaches of the Act were received from Mr. E. F. May, H.M. Inspector of Factories for this district, and the necessary Notices were served in 13 instances to remedy the same, but in the other the circumstances did not justify any action being taken. The following were the matters referred to by him :—

| | |
|---|---|
| Workshops and Bakehouses requiring cleansing | 5 |
| Defective sanitary fittings | 3 |
| Improper sanitary conveniences | 3 |
| Want of separate sanitary convenience for sexes | 1 |
| Want of ventilation | 1 |
| Dirty and dilapidated workshop | 1 |

At the end of the year, with regard to three of these, the necessary alterations had not been carried out, but were receiving the attention of the occupiers.

In addition to the above, the following defects, found during my 182 visits, were remedied :—

| | |
|---|---|
| Defective, obstructed, or untrapped drains | 5 |
| Defective waterclosets | 2 |
| Want of ventilation | 1 |
| Dirty or dilapidated workshops or workrooms | 14 |
| Defective spouting | 1 |
| Dirty bakehouses | 2 |
| Accumulation of refuse | 1 |

BAKEHOUSES.—There are 27 "Workshop" and 4 "Factory" Bakehouses on the Register. Of the former, 2 come under the definition of "Underground" and 4 are not in use and have not been for some years. They are generally well kept, and in only 4 instances was it necessary to serve notices for cleansing and whitewashing.

HOME WORK.—The Secretary of State has issued a new Order, relating to Lists of Outworkers, referred to as "The Home Work Order of the 15th August, 1905," which revokes those of 11th December, 1901, and 14th July, 1902. This necessitated the amending of the prescribed form which is supplied gratuitously to tradespeople affected by its provisions.

This portion of the Factory and Workshop Act is of great value, and makes it compulsory on certain tradespeople who send work out to be executed at home, to submit twice a year on the first days of February and August, lists containing the names and addresses of persons to whom certain work is sent. The principal trades in Hereford thus affected are those connected with the making, altering, finishing, and repairing of wearing apparel and work incidental thereto, and upholstery.

OUTWORKERS.—During my 93 visits to the houses of "Outworkers." I found six in such as state as to require cleansing, and in two instances the premises were in such an unwholesome condition as to necessitate service of notices upon the employers, prohibiting home-work being sent there until the necessary cleansing had been carried out.

Infectious Disease occurred at one house, and an order, signed by two members of the Town Council, prohibiting home-work from being sent there until the period of infection had passed, was served upon the employer, and received due attention. The necessary disinfection at this house was carried out after the removal of the patients to the Isolation Hospital, and, so far as we are aware, no further cases occurred in connection with the business of this outworker.

## INFECTIOUS DISEASE.

The number of reports made to the Medical Officer of Health respecting cases of Infectious Disease during the year 1905, was 245, *i.e.*, Scarlet Fever, 55; Diphtheria, 52; Membranous Croup, 3; Puerperal Fever, 3; Erysipelas, 44; and Chicken-pox, 88.

For the information of new Members of the Town Council I give the following account of the methods adopted in dealing with Infectious Disease.

Immediately upon receiving information, the house is visited and various particulars are obtained and recorded on a form and submitted to the Medical Officer of Health. These are afterwards entered in a Register. In this way a complete record is kept of every case, such as the name, age, and address of the patient, the date of the commencement of the illness, the number of people in the house, the places of business, and the Day and Sunday Schools attended. The source of the milk supply is obtained and the character of the house and its sanitary condition are also noted. Enquiries are also made as to the probable source of infection, although it is only in a few cases that information bearing on the point can be obtained.

The principal steps taken in endeavouring to arrest the spread of infectious disease are (1) the removal of nuisances; (2), isolation, and (3) disinfection.

At every house where Scarlet Fever occurs a list of precautions to be taken, containing extracts from the Acts on the subject, is left, to supplement verbal instructions.

Disinfectants are supplied where needed during the illness, free of cost, and immediately after a case is removed to the Hospital, and where a case has been kept at home, after the period of infection is over, the bedding is removed for disinfection, and has invariably been returned the same day. The disinfection of rooms has been done by generating Formic Aldehyde Gas in an "Alformant" Lamp, and this has been carried out at 73 houses. The disinfection is performed free of charge to the householder.

In order to prevent the spread of infectious disease in Schools the Head Teachers of the Day Schools and the Superintendents of the Sunday Schools are notified as early as possible of the existence of disease in the homes of children, and, during the year, 240 Notices were sent requesting them to exclude all children at that house from school until disinfection had been carried out.

All Library Books found at the houses are retained by the Sanitary Authority and are sent to the Isolation Hospital for the use of patients, and are destroyed when they become too worn for use.

CONSUMPTION.—During the year disinfection was carried out at six houses, two lots of bedding were disinfected and one lot destroyed, after deaths or removal of consumptives, upon application from the occupiers. This is carried out free of charge, and is to be encouraged, and citizens are invited to ask the Health Department to carry this out where advised.

## CITY ISOLATION HOSPITAL.

At the close of 1904 there were 14 cases of Scarlet Fever under treatment at the Isolation Hospital. During the year 1905, 35 cases of Scarlet Fever were admitted, 40 were discharged and two proved fatal, and there were 7 remaining at the close of the year.

Owing to an outbreak of Diphtheria towards the latter part of the year, the Smallpox Hospital, which had not been used since its erection in 1902, was opened for the treatment of Diphtheria cases, and from December 23rd to the 31st, 10 cases were admitted. This arrangement necessitated the temporary engagement of additional nurses.

During the past year the additions and improvements in the way of enlarging the laundry, the erection of an ironing room, the provision of heating apparatus and hot-water supply for No. 2 block, and the extension of the gas mains and substitution of lighting by gas in place of oil lamps have been completed, and give great satisfaction and additional comfort to both the patients and staff.

DISINFECTING APPARATUS. The boiler in connection with the disinfecting apparatus has been thoroughly overhauled, and it was found that the fire-box and cross tubes were so corroded as to be unsafe. This necessitated its removal to the engineers, and the necessary parts were renewed at a cost of £57, a temporary boiler being fixed in the meantime.

Sixty-six lots of bedding and clothing were disinfected in the apparatus, exclusive of the clothing worn by patients in the Hospital, which is disinfected previous to their discharge.

## SANITARY INSPECTOR'S CONFERENCE.

I have to thank your Committee for allowing me to attend in August last the second London Conference of the Sanitary Inspector's Association, of which I have been a Member for the past ten years. The meeting was presided over by the President, Sir James Crichton-Browne, and was opened by an address from him which was most interesting and instructive, the subjects dealt with being of vital interest to sanitarians. During the Conference several papers were read, upon which practical and advantageous discussions took place. The delegates had the opportunity of visiting the Southern Outfall Sewage Works at Crossness, and also inspected the new system of drainage at St. Thomas' Hospital. Visits were also paid to the Potteries of Messrs. Doulton, and to the works of the Sanitas Company.

These Conferences give Sanitary Inspectors the opportunity of personal intercourse with representatives from all parts of the kingdom, and of discussing various matters and problems relating to Public Health administration, which cannot do otherwise than prove beneficial.

In conclusion, Mr. Chairman and Gentlemen, I beg to thank you for your valuable support and kind consideration in all matters I have brought before you, without which it would be impossible for me to discharge the duties devolving upon me, and I also have to thank the Medical Officer of Health, the City Surveyor and his staff, the Hospital Matron, and others for their continuous help and cordial co-operation.

I am,
Mr. Chairman and Gentlemen,
Yours obediently,
SIDNEY PROTHEROE,
Sanitary Inspector,
Associate Royal Sanitary Institute.

# Annual Report of the Sanitary Inspector, City of Hereford, 1905.

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